

SEQUENCE LISTING

<110> Brad St. Croix
Bert Vogelstein
Kenneth Kinzler

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tgagtcattg	ttataaaaaa	tcagttatca	ctataccatg	ctataggaga	ctggggcaaaa	5460
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<210> 177
 <211> 757
 <212> PRT
 <213> Homo sapiens

<400> 177
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 Gly Gln Asp Pro Trp Ala Ala Glu Pro Arg Ala Ala Cys Gly Pro Ser
 20 25 30
 Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
 35 40 45
 Arg Ala Cys Arg Glu Leu Gly Gly Asp Leu Ala Thr Pro Arg Thr Pro
 50 55 60

545 550 555 560
 Leu Gly Ala Gln Leu Pro Pro Gln Ala Pro Asp Ala Leu Val Leu Arg
 565 570 575
 Thr Gln Ala Thr Gln Leu Pro Ile Ile Pro Thr Ala Gln Pro Ser Leu
 580 585 590
 Thr Thr Thr Ser Arg Ser Pro Val Ser Pro Ala His Gln Ile Ser Val
 595 600 605
 Pro Ala Ala Thr Gln Pro Ala Ala Leu Pro Thr Leu Leu Pro Ser Gln
 610 615 620
 Ser Pro Thr Asn Gln Thr Ser Pro Ile Ser Pro Thr His Pro His Ser
 625 630 635 640
 Lys Ala Pro Gln Ile Pro Arg Glu Asp Gly Pro Ser Pro Lys Leu Ala
 645 650 655
 Leu Trp Leu Pro Ser Pro Ala Pro Thr Ala Ala Pro Thr Ala Leu Gly
 660 665 670
 Glu Ala Gly Leu Ala Glu His Ser Gln Arg Asp Asp Arg Trp Leu Leu
 675 680 685
 Val Ala Leu Leu Val Pro Thr Cys Val Phe Leu Val Val Leu Leu Ala
 690 695 700
 Leu Gly Ile Val Tyr Cys Thr Arg Cys Gly Pro His Ala Pro Asn Lys
 705 710 715 720
 Arg Ile Thr Asp Cys Tyr Arg Trp Val Ile His Ala Gly Ser Lys Ser
 725 730 735
 Pro Thr Glu Pro Met Pro Pro Arg Gly Ser Leu Thr Gly Val Gln Thr
 740 745 750
 Cys Arg Thr Ser Val
 755

<210> 178
 <211> 278
 <212> PRT
 <213> Homo sapiens

<400> 178
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 Arg Met Val Val Leu Gly Ala Ser Arg Val Gly Lys Ser Ser Ile Val
 35 40 45
 Ser Arg Phe Leu Asn Gly Arg Phe Glu Asp Gln Tyr Thr Pro Thr Ile
 50 55 60
 Glu Asp Phe His Arg Lys Val Tyr Asn Ile Arg Gly Asp Met Tyr Gln
 65 70 75 80
 Leu Asp Ile Leu Asp Thr Ser Gly Asn His Pro Phe Pro Ala Met Arg
 85 90 95
 Arg Leu Ser Ile Leu Thr Gly Asp Val Phe Ile Leu Val Phe Ser Leu
 100 105 110
 Asp Asn Arg Glu Ser Phe Asp Glu Val Lys Arg Leu Gln Lys Gln Ile
 115 120 125
 Leu Glu Val Lys Ser Cys Leu Lys Asn Lys Thr Lys Glu Ala Ala Glu
 130 135 140
 Leu Pro Met Val Ile Cys Gly Asn Lys Asn Asp His Gly Glu Leu Cys
 145 150 155 160
 Arg Gln Val Pro Thr Thr Glu Ala Glu Leu Leu Val Ser Gly Asp Glu
 165 170 175
 Asn Cys Ala Tyr Phe Glu Val Ser Ala Lys Lys Asn Thr Asn Val Asp
 180 185 190
 Glu Met Phe Tyr Val Leu Phe Ser Met Ala Lys Leu Pro His Glu Met
 195 200 205
 Ser Pro Ala Leu His Arg Lys Ile Ser Val Gln Tyr Gly Asp Ala Phe

210	215	220
His Pro Arg Pro Phe Cys Met Arg Arg Val Lys Glu Met Asp Ala Tyr		
225	230	235
Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val Asn Ser Asp Leu		
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Lys Tyr Ile Lys Ala Lys Val Leu Arg Glu Gly Gln Ala Arg Glu Arg		255
	260	265
Asp Lys Cys Thr Ile Gln		270
275		

<210> 179
 <211> 1002
 <212> PRT
 <213> Homo sapiens

<400> 179
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35 40 45
Arg Glu Ser Pro Gly His Val Ser Glu Pro Asp Arg Thr Gln Leu Ser
50 55 60
Gln Asp Leu Gly Gly Gly Thr Leu Ala Met Asp Thr Leu Pro Asp Asn
65 70 75 80
Arg Thr Arg Val Val Glu Asp Asn His Ser Tyr Tyr Val Ser Arg Leu
85 90 95
Tyr Gly Pro Ser Glu Pro His Ser Arg Glu Leu Trp Val Asp Val Ala
100 105 110
Glu Ala Asn Arg Ser Gln Val Lys Ile His Thr Ile Leu Ser Asn Thr
115 120 125
His Arg Gln Ala Ser Arg Val Leu Ser Phe Asp Phe Pro Phe Tyr
130 135 140
Gly His Pro Leu Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile Phe
145 150 155 160
Met Gly Asp Val Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala
165 170 175
Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val
180 185 190
Val Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val
195 200 205
Tyr Leu Gln Gly Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala
210 215 220
Leu His His Asp Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met
225 230 235 240
Ser Val Pro Glu Ile Ser Ser Ser Gln His Pro Val Lys Thr Gly Leu
245 250 255
Ser Asp Ala Phe Met Ile Leu Asn Pro Ser Pro Asp Val Pro Glu Ser
260 265 270
Arg Arg Arg Ser Ile Phe Glu Tyr His Arg Ile Glu Leu Asp Pro Ser
275 280 285
Lys Val Thr Ser Met Ser Ala Val Glu Phe Thr Pro Leu Pro Thr Cys
290 295 300
Leu Gln His Arg Ser Cys Asp Ala Cys Met Ser Ser Asp Leu Thr Phe
305 310 315 320
Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp
325 330 335
Arg Tyr Arg Gln Glu Trp Asp Gly Thr Met Gly Cys Ala Gln Glu Ala
340 345 350
Glu Gly Gln Asp Val Arg Gly Leu Pro Gly Met Arg Thr Thr Ser

Cys Ala Gln Glu Ala Glu Gly Arg Met Cys Glu Asp Phe Gln Asp Glu
 850 855 860
 Asp His Asp Ser Ala Ser Pro Asp Thr Ser Phe Ser Pro Tyr Asp Gly
 865 870 875 880
 Asp Leu Thr Thr Thr Ser Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr
 885 890 895
 Glu Asp Asp Thr Lys Leu Asn Pro Tyr Ala Gly Gly Asp Gly Leu Gln
 900 905 910
 Asn Asn Leu Ser Pro Lys Thr Lys Gly Thr Pro Val His Leu Gly Thr
 915 920 925
 Ile Val Gly Ile Val Leu Ala Val Leu Leu Val Ala Ala Ile Ile Leu
 930 935 940
 Ala Gly Ile Tyr Ile Asn Gly His Pro Thr Ser Asn Ala Ala Leu Phe
 945 950 955 960
 Phe Ile Glu Arg Arg Pro His His Trp Pro Ala Met Lys Phe Arg Ser
 965 970 975
 His Pro Asp His Ser Thr Tyr Ala Glu Val Glu Pro Ser Gly His Glu
 980 985 990
 Lys Glu Gly Phe Met Glu Ala Glu Gln Cys
 995 1000

<210> 180
 <211> 5680
 <212> DNA
 <213> Homo sapiens

<400> 180

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cacggggctc	cgcaatggct	ccttccctgg	actgtcactg	ctggagaagc	tggacctgag	360
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<210> 181
 <211> 2157
 <212> DNA
 <213> Homo sapiens

<400> 181
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 gattggcagt atggagttac tcaggccttc cctcacacag aggaggaggt ggaagttgat 180
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<210> 182
 <211> 2535
 <212> DNA
 <213> Mus musculus

<400> 182
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 ccccggcgcc gcacattcct ggaagcttgg cgggcgtgcc gcgaattggg gggcaacctg 180
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 gagcatcgct ggctcgaagg ctctgtcaca ctggtgtctg atggctacct ctgccagttt 480
 ggttttgagg gtgcctgccc tgccttgccc cttgaggtgg gtcaggccgg tcccgtgtgc 540

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<210> 184
 <211> 2833
 <212> DNA
 <213> Mus musculus

<400> 184						
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aaaaaaaaaa	aaa					2833

<210> 185
 <211> 2009
 <212> DNA
 <213> Mus musculus

<400> 185						
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gtagaagtgg	actctcaagc	atacaaccac	aggtggaaaa	gaaatgtgga	cccttttaag	240
gcagtagaca	caaacagagc	cagcatgggc	caagcctctc	cagagtccaa	agggttcact	300
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aattactaca	tttctcggat	atatggtcca	gcggtattctg	ccagccggga	tctgtgggtt	420
aacatagacc	aaatggaaaa	agacaaagtg	aagattcacg	ggatactttc	caacactcat	480
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gaagtcaactg	tggcaactgg	gggtttcata	tatactggag	aagttgtaca	tcgaatgctc	600
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tcaactgtca	gatattttga	taatggcaca	gctcttggtg	tccagtgga	ccatgtccac	720
ctgcaggata	attacaacct	gggaagcttc	acattccagg	ccacactcct	catggacggg	780
cgcatactct	ttggatacaa	agaaatccct	gtcttggtca	cacagataag	ttctaccaac	840
catccagtga	aagtcgggtt	gtctgatgca	tttgtcgtgg	tccacaggat	ccagcaaata	900
cccaatgttc	gaagaagaac	aatttatgaa	tatcaccgag	tagaactaca	aatgtccaaa	960
attaccaaca	tctcagctgt	ggagatgact	ccacttccca	catgtctcca	gttcaatggg	1020
tgtggccctt	gtgtgtcctc	gcagattgg	ttcaactgca	gttgggtgcag	caaacttcaa	1080
agatgctcca	gtggatttga	tgcctatcgg	caggactggg	tggacagtgg	atgcccgga	1140
gaggtacagt	caaaaagagaa	gatgtgtgag	aagacagagc	caggagagac	gtctcaaact	1200
accacgacct	cccacacgac	caccatgcaa	ttcagggtcc	tgaccaccac	caggagagct	1260
gtgacatcgc	agatgcctac	cagcctgcct	acagaagatg	acacgaagat	agccctacat	1320
ctcaaagaca	gtggagcctc	cacagatgac	agtgcagctg	agaagaaagg	aggaaccctc	1380
catgcaggcc	tcattgttgg	aattctcatc	ttggtcctca	ttatagcagc	ggccattctg	1440
gtgacagtgt	atatgtatca	ccatccaaca	tcagcagcca	gcattctctt	cattgagaga	1500
cgcccaagca	gatggccagc	aatgaagttt	cgaagaggct	caggacaccc	tgcttatgca	1560
gaagttgaac	cagttggaga	gaaagaaggt	tttattgtat	cagagcagtg	ctaaaatttt	1620
aggacagagc	agcaccagta	ctggcttaca	ggtgttaaga	ctaaaacttt	gcttatgcat	1680
ttaagacaaa	cagacacaca	acccacaacc	acacacaaag	gagccctaaa	ctgctgtaga	1740
cagaagggcg	acgagatttc	tggacaagcc	cagcccagga	acattgaaag	gaaaactcag	1800
acttgtacaa	gacaccatgt	acaatgatta	aagaattccc	tagtggaatg	acatccatgg	1860
ttcacaagga	acatctccgg	tggacttgcc	aggagtgtga	cgagatgacg	atgcttttgg	1920
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gttcacaagg	gaaaaaaaaa	aaaaaaaaaa				2009

<210> 186
 <211> 5220
 <212> DNA
 <213> Mus musculus

<400> 186						
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ccagcggaaa	ccaaagcgaa	atccttgaac	ttctctgaac	aattgcttcc	ggcggtttgc	180
tgagagccgg	gggacctgac	cggagcccag	gccgcgtatg	gcgcgcccc	gatgtcacac	240
ggacgccagc	gaggccagcg	ctccggctgc	agcatggacc	gcgcggggcg	cctgggtgcg	300

gcatgggctt	cggggaaggc	agcagactcc	gagagcaggc	cttgtgcagt	gtcccaaggg	4020
gctgtggtga	agtgtctgag	gaaaaatgaa	tgctgataca	tggtgattct	gagaagaatt	4080
tgcaaggttt	gaccttagaa	tttatggaat	gtcttccctg	gtcattcaga	attatggcta	4140
gaagtttcta	gaaaccgtca	aggttaatac	ctttcagagt	aggtgattac	aggcaggaag	4200
agctttgatg	tggtttacaa	agcccatcag	ttctgtgtca	ttccctgtaa	gcaacaggag	4260
atgggtggtg	tgattagcaa	actgcatgtg	ttatttgttt	gactccttgt	tattgtcctt	4320
acggaggatt	ttttttatat	aagccaaatt	ttgttggtata	tattcatatt	ccacgtgaca	4380
gatggaagca	cgtcctatca	gtgtgaataa	aaagaacagt	tgtagtaa	tattaaagcc	4440
agtgatttca	tggcaggtta	ccctaccaag	ctgtgcttgt	tgatctccca	tgaccatact	4500
gcttttacaa	tgtacaaata	gttcctaggt	gacgagaccc	tcctttacat	aatgccgatg	4560
acagccttgc	tggaactgc	ggtccttctg	ctgtgacagc	cagctcgaaa	acaggtcctg	4620
cctggagctt	gccacacact	ttagggagac	ataagagctg	tctttcccca	gcgtcagggg	4680
caaagctacc	ataaagaagt	ggaaaagtct	tggtctctcca	gcctgggaca	gaggtctctc	4740
tggaacccca	aggaagagca	gaaatgatcc	ttgcctgcca	ctgcacacaa	tgtgatggtg	4800
gaaaatccat	caaggaataa	ttgtgagata	atgaccgaca	gttcaggcgc	aaagggaatt	4860
catgctgtgt	aaagtgggtg	gaattcgttt	gcaagctatg	caaagcctga	tcttactcac	4920
caggaggatg	gaaaggggtt	ttttagttat	ctgagctcag	ctgagttatc	acgcttggag	4980
aaccgattta	aaggaattag	aatatgattt	ctgaatacac	ataacattaa	actcttctct	5040
ttttctatgg	taatttagtt	atggacgttc	agcgtctctg	agttattggt	ataaaagact	5100
tgatcatcacc	gcactgtgct	gtaggagact	gggctgaacc	tgtacaatgg	tataccctgg	5160
aagttgcttt	tttaaaaaaa	aataataata	aacacctaaa	atcaaaaaaa	aaaaaaaaaa	5220

<210> 187
 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 187

Met	Ala	Thr	Ala	Glu	Arg	Arg	Ala	Leu	Gly	Ile	Gly	Phe	Gln	Trp	Leu
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Ser	Leu	Ala	Thr	Leu	Val	Leu	Ile	Cys	Ala	Gly	Gln	Gly	Gly	Arg	Arg
		20						25				30			
Glu	Asp	Gly	Gly	Pro	Ala	Cys	Tyr	Gly	Gly	Phe	Asp	Leu	Tyr	Phe	Ile
		35					40				45				
Leu	Asp	Lys	Ser	Gly	Ser	Val	Leu	His	His	Trp	Asn	Glu	Ile	Tyr	Tyr
	50					55					60				
Phe	Val	Glu	Gln	Leu	Ala	His	Lys	Phe	Ile	Ser	Pro	Gln	Leu	Arg	Met
	65				70					75				80	
Ser	Phe	Ile	Val	Phe	Ser	Thr	Arg	Gly	Thr	Thr	Leu	Met	Lys	Leu	Thr
				85				90					95		
Glu	Asp	Arg	Glu	Gln	Ile	Arg	Gln	Gly	Leu	Glu	Glu	Leu	Gln	Lys	Val
		100						105					110		
Leu	Pro	Gly	Gly	Asp	Thr	Tyr	Met	His	Glu	Gly	Phe	Glu	Arg	Ala	Ser
		115					120					125			
Glu	Gln	Ile	Tyr	Tyr	Glu	Asn	Arg	Gln	Gly	Tyr	Arg	Thr	Ala	Ser	Val
	130					135					140				
Ile	Ile	Ala	Leu	Thr	Asp	Gly	Glu	Leu	His	Glu	Asp	Leu	Phe	Phe	Tyr
	145				150					155				160	
Ser	Glu	Arg	Glu	Ala	Asn	Arg	Ser	Arg	Asp	Leu	Gly	Ala	Ile	Val	Tyr
				165				170					175		
Cys	Val	Gly	Val	Lys	Asp	Phe	Asn	Glu	Thr	Gln	Leu	Ala	Arg	Ile	Ala
		180						185					190		
Asp	Ser	Lys	Asp	His	Val	Phe	Pro	Val	Asn	Asp	Gly	Phe	Gln	Ala	Leu
		195					200					205			
Gln	Gly	Ile	Ile	His	Ser	Ile	Leu	Lys	Lys	Ser	Cys	Ile	Glu	Ile	Leu
	210					215					220				
Ala	Ala	Glu	Pro	Ser	Thr	Ile	Cys	Ala	Gly	Glu	Ser	Phe	Gln	Val	Val
	225				230					235				240	

Val Arg Gly Asn Gly Phe Arg His Ala Arg Asn Val Asp Arg Val Leu
 245 250 255
 Cys Ser Phe Lys Ile Asn Asp Ser Val Thr Leu Asn Glu Lys Pro Phe
 260 265 270
 Ser Val Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro Ile Leu Lys Glu
 275 280 285
 Val Gly Met Lys Ala Ala Leu Gln Val Ser Met Asn Asp Gly Leu Ser
 290 295 300
 Phe Ile Ser Ser Ser Val Ile Ile Thr Thr Thr His Cys Ser Asp Gly
 305 310 315 320
 Ser Ile Leu Ala Ile Ala Leu Leu Ile Leu Phe Leu Leu Leu Ala Leu
 325 330 335
 Ala Leu Leu Trp Trp Phe Trp Pro Leu Cys Cys Thr Val Ile Ile Lys
 340 345 350
 Glu Val Pro Pro Pro Pro Ala Glu Glu Ser Glu Glu Glu Asp Asp Asp
 355 360 365
 Gly Leu Pro Lys Lys Lys Trp Pro Thr Val Asp Ala Ser Tyr Tyr Gly
 370 375 380
 Gly Arg Gly Val Gly Gly Ile Lys Arg Met Glu Val Arg Trp Gly Glu
 385 390 395 400
 Lys Gly Ser Thr Glu Glu Gly Ala Lys Leu Glu Lys Ala Lys Asn Ala
 405 410 415
 Arg Val Lys Met Pro Glu Gln Glu Tyr Glu Phe Pro Glu Pro Arg Asn
 420 425 430
 Leu Asn Asn Asn Met Arg Arg Pro Ser Ser Pro Arg Lys Trp Tyr Ser
 435 440 445
 Pro Ile Lys Gly Lys Leu Asp Ala Leu Trp Val Leu Leu Arg Lys Gly
 450 455 460
 Tyr Asp Arg Val Ser Val Met Arg Pro Gln Pro Gly Asp Thr Gly Arg
 465 470 475 480
 Cys Ile Asn Phe Thr Arg Val Lys Asn Asn Gln Pro Ala Lys Tyr Pro
 485 490 495
 Leu Asn Asn Ala Tyr His Thr Ser Ser Pro Pro Pro Ala Pro Ile Tyr
 500 505 510
 Thr Pro Pro Pro Pro Ala Pro His Cys Pro Pro Pro Pro Ser Ala
 515 520 525
 Pro Thr Pro Pro Ile Pro Ser Pro Pro Ser Thr Leu Pro Pro Pro Pro
 530 535 540
 Gln Ala Pro Pro Pro Asn Arg Ala Pro Pro Pro Ser Arg Pro Pro Pro
 545 550 555 560
 Arg Pro Ser Val

<210> 188
 <211> 1331
 <212> PRT
 <213> Homo sapiens

<400> 188
 Met Arg Gly Ala Pro Ala Arg Leu Leu Leu Pro Leu Leu Pro Trp Leu
 1 5 10 15
 Leu Leu Leu Leu Ala Pro Glu Ala Arg Gly Ala Pro Gly Cys Pro Leu
 20 25 30
 Ser Ile Arg Ser Cys Lys Cys Ser Gly Glu Arg Pro Lys Gly Leu Ser
 35 40 45
 Gly Gly Val Pro Gly Pro Ala Arg Arg Arg Val Val Cys Ser Gly Gly
 50 55 60
 Asp Leu Pro Glu Pro Pro Glu Pro Gly Leu Leu Pro Asn Gly Thr Val
 65 70 75 80
 Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser
 85 90 95

Phe	Leu	Gly	Leu	Ser	Leu	Leu	Glu	Lys	Leu	Asp	Leu	Arg	Asn	Asn	Ile
			100					105					110		
Ile	Ser	Thr	Val	Gln	Pro	Gly	Ala	Phe	Leu	Gly	Leu	Gly	Glu	Leu	Lys
		115					120					125			
Arg	Leu	Asp	Leu	Ser	Asn	Asn	Arg	Ile	Gly	Cys	Leu	Thr	Ser	Glu	Thr
	130					135					140				
Phe	Gln	Gly	Leu	Pro	Arg	Leu	Leu	Arg	Leu	Asn	Ile	Ser	Gly	Asn	Ile
145					150					155					160
Phe	Ser	Ser	Leu	Gln	Pro	Gly	Val	Phe	Asp	Glu	Leu	Pro	Ala	Leu	Lys
			165						170					175	
Val	Val	Asp	Leu	Gly	Thr	Glu	Phe	Leu	Thr	Cys	Asp	Cys	His	Leu	Arg
		180						185					190		
Trp	Leu	Leu	Pro	Trp	Ala	Gln	Asn	Arg	Ser	Leu	Gln	Leu	Ser	Glu	His
	195						200				205				
Thr	Leu	Cys	Ala	Tyr	Pro	Ser	Ala	Leu	His	Ala	Gln	Ala	Leu	Gly	Ser
	210					215					220				
Leu	Gln	Glu	Ala	Gln	Leu	Cys	Cys	Glu	Gly	Ala	Leu	Glu	Leu	His	Thr
225					230					235					240
His	His	Leu	Ile	Pro	Ser	Leu	Arg	Gln	Val	Val	Phe	Gln	Gly	Asp	Arg
				245					250					255	
Leu	Pro	Phe	Gln	Cys	Ser	Ala	Ser	Tyr	Leu	Gly	Asn	Asp	Thr	Arg	Ile
		260						265					270		
Arg	Trp	Tyr	His	Asn	Arg	Ala	Pro	Val	Glu	Gly	Asp	Glu	Gln	Ala	Gly
		275					280					285			
Ile	Leu	Leu	Ala	Glu	Ser	Leu	Ile	His	Asp	Cys	Thr	Phe	Ile	Thr	Ser
	290					295					300				
Glu	Leu	Thr	Leu	Ser	His	Ile	Gly	Val	Trp	Ala	Ser	Gly	Glu	Trp	Glu
305					310					315					320
Cys	Thr	Val	Ser	Met	Ala	Gln	Gly	Asn	Ala	Ser	Lys	Lys	Val	Glu	Ile
				325					330					335	
Val	Val	Leu	Glu	Thr	Ser	Ala	Ser	Tyr	Cys	Pro	Ala	Glu	Arg	Val	Ala
		340						345					350		
Asn	Asn	Arg	Gly	Asp	Phe	Arg	Trp	Pro	Arg	Thr	Leu	Ala	Gly	Ile	Thr
		355					360					365			
Ala	Tyr	Gln	Ser	Cys	Leu	Gln	Tyr	Pro	Phe	Thr	Ser	Val	Pro	Leu	Gly
	370					375					380				
Gly	Gly	Ala	Pro	Gly	Thr	Arg	Ala	Ser	Arg	Arg	Cys	Asp	Arg	Ala	Gly
385					390					395					400
Arg	Trp	Glu	Pro	Gly	Asp	Tyr	Ser	His	Cys	Leu	Tyr	Thr	Asn	Asp	Ile
				405					410					415	
Thr	Arg	Val	Leu	Tyr	Thr	Phe	Val	Leu	Met	Pro	Ile	Asn	Ala	Ser	Asn
			420				425						430		
Ala	Leu	Thr	Leu	Ala	His	Gln	Leu	Arg	Val	Tyr	Thr	Ala	Glu	Ala	Ala
		435					440					445			
Ser	Phe	Ser	Asp	Met	Met	Asp	Val	Val	Tyr	Val	Ala	Gln	Met	Ile	Gln
		450				455					460				
Lys	Phe	Leu	Gly	Tyr	Val	Asp	Gln	Ile	Lys	Glu	Leu	Val	Glu	Val	Met
465					470					475					480
Val	Asp	Met	Ala	Ser	Asn	Leu	Met	Leu	Val	Asp	Glu	His	Leu	Leu	Trp
				485					490					495	
Leu	Ala	Gln	Arg	Glu	Asp	Lys	Ala	Cys	Ser	Arg	Ile	Val	Gly	Ala	Leu
		500						505					510		
Glu	Arg	Ile	Gly	Gly	Ala	Ala	Leu	Ser	Pro	His	Ala	Gln	His	Ile	Ser
		515					520					525			
Val	Asn	Ala	Arg	Asn	Val	Ala	Leu	Glu	Ala	Tyr	Leu	Ile	Lys	Pro	His
	530					535					540				
Ser	Tyr	Val	Gly	Leu	Thr	Cys	Thr	Ala	Phe	Gln	Arg	Arg	Glu	Gly	Gly
545					550					555					560
Val	Pro	Gly	Thr	Arg	Pro	Gly	Ser	Pro	Gly	Gln	Asn	Pro	Pro	Pro	Glu
				565					570					575	
Pro	Glu	Pro	Pro	Ala	Asp	Gln	Gln	Leu	Arg	Phe	Arg	Cys	Thr	Thr	Gly

Trp Arg Ala Cys Cys Pro Pro Ala Ser Pro Ala Ala Pro His Ala Pro
 1075 1080 1085
 Pro Arg Ala Leu Pro Ala Ala Glu Asp Gly Ser Pro Val Phe Gly
 1090 1095 1100
 Glu Gly Pro Pro Ser Leu Lys Ser Ser Pro Ser Gly Ser Ser Gly His
 1105 1110 1115 1120
 Pro Leu Ala Leu Gly Pro Cys Lys Leu Thr Asn Leu Gln Leu Ala Gln
 1125 1130 1135
 Ser Gln Val Cys Glu Ala Gly Ala Ala Gly Gly Glu Gly Glu Pro
 1140 1145 1150
 Glu Pro Ala Gly Thr Arg Gly Asn Leu Ala His Arg His Pro Asn Asn
 1155 1160 1165
 Val His His Gly Arg Arg Ala His Lys Ser Arg Ala Lys Gly His Arg
 1170 1175 1180
 Ala Gly Glu Ala Cys Gly Lys Asn Arg Leu Lys Ala Leu Arg Gly Gly
 1185 1190 1195 1200
 Ala Ala Gly Ala Leu Glu Leu Leu Ser Ser Glu Ser Gly Ser Leu His
 1205 1210 1215
 Asn Ser Pro Thr Asp Ser Tyr Leu Gly Ser Ser Arg Asn Ser Pro Gly
 1220 1225 1230
 Ala Gly Leu Gln Leu Glu Gly Glu Pro Met Leu Thr Pro Ser Glu Gly
 1235 1240 1245
 Ser Asp Thr Ser Ala Ala Pro Leu Ser Glu Ala Gly Arg Ala Gly Gln
 1250 1255 1260
 Arg Arg Ser Ala Ser Arg Asp Ser Leu Lys Gly Gly Gly Ala Leu Glu
 1265 1270 1275 1280
 Lys Glu Ser His Arg Arg Ser Tyr Pro Leu Asn Ala Ala Ser Leu Asn
 1285 1290 1295
 Gly Ala Pro Lys Gly Gly Lys Tyr Asp Asp Val Thr Leu Met Gly Ala
 1300 1305 1310
 Glu Val Ala Ser Gly Gly Cys Met Lys Thr Gly Leu Trp Lys Ser Glu
 1315 1320 1325
 Thr Thr Val
 1330

<210> 189
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 189
 Met Ala Arg Phe Pro Lys Ala Asp Leu Ala Ala Ala Gly Val Met Leu
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 Leu Cys His Phe Phe Thr Asp Gln Phe Gln Phe Ala Asp Gly Lys Pro
 20 25 30
 Gly Asp Gln Ile Leu Asp Trp Gln Tyr Gly Val Thr Gln Ala Phe Pro
 35 40 45
 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg
 50 55 60
 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala
 65 70 75 80
 Ser Val Gly Gln Asp Ser Pro Glu Pro Arg Ser Phe Thr Asp Leu Leu
 85 90 95
 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
 100 105 110
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser
 115 120 125
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
 130 135 140
 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
 145 150 155 160

Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr
 165 170 175
 Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met
 180 185 190
 Leu Thr Ala Thr Gln Tyr Ile Ala Pro Leu Met Ala Asn Phe Asp Pro
 195 200 205
 Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala
 210 215 220
 Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu
 225 230 235 240
 Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile
 245 250 255
 Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr
 260 265 270
 Asn His Pro Val Lys Val Gly Leu Ser Asp Ala Phe Val Val Val His
 275 280 285
 Arg Ile Gln Gln Ile Pro Asn Val Arg Arg Arg Thr Ile Tyr Glu Tyr
 290 295 300
 His Arg Val Glu Leu Gln Met Ser Lys Ile Thr Asn Ile Ser Ala Val
 305 310 315 320
 Glu Met Thr Pro Leu Pro Thr Cys Leu Gln Phe Asn Arg Cys Gly Pro
 325 330 335
 Cys Val Ser Ser Ser Gln Ile Gly Phe Asn Cys Ser Trp Cys Ser Lys Leu
 340 345 350
 Gln Arg Cys Ser Ser Gly Phe Asp Arg His Arg Gln Asp Trp Val Asp
 355 360 365
 Ser Gly Cys Pro Glu Glu Ser Lys Glu Lys Met Cys Glu Asn Thr Glu
 370 375 380
 Pro Val Glu Thr Ser Ser Arg Thr Thr Thr Thr Ile Gly Ala Thr Thr
 385 390 395 400
 Thr Gln Phe Arg Val Leu Thr Thr Thr Arg Arg Ala Val Thr Ser Gln
 405 410 415
 Phe Pro Thr Ser Leu Pro Thr Glu Asp Asp Thr Lys Ile Ala Leu His
 420 425 430
 Leu Lys Asp Asn Gly Ala Ser Thr Asp Asp Ser Ala Ala Glu Lys Lys
 435 440 445
 Gly Gly Thr Leu His Ala Gly Leu Ile Val Gly Ile Leu Ile Leu Val
 450 455 460
 Leu Ile Val Ala Thr Ala Ile Leu Val Thr Val Tyr Met Tyr His His
 465 470 475 480
 Pro Thr Ser Ala Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser Arg
 485 490 495
 Trp Pro Ala Met Lys Phe Arg Arg Gly Ser Gly His Pro Ala Tyr Ala
 500 505 510
 Glu Val Glu Pro Val Gly Glu Lys Glu Gly Phe Ile Val Ser Glu Gln
 515 520 525
 Cys

<210> 190
 <211> 765
 <212> PRT
 <213> Mus musculus

<400> 190
 Met Leu Leu Arg Leu Leu Leu Ala Trp Val Ala Ala Val Pro Ala Leu
 1 5 10 15
 Gly Gln Val Pro Trp Thr Pro Glu Pro Arg Ala Ala Cys Gly Pro Ser
 20 25 30
 Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
 35 40 45

Arg	Ala	Cys	Arg	Glu	Leu	Gly	Gly	Asn	Leu	Ala	Thr	Pro	Arg	Thr	Pro
	50					55					60				
Glu	Glu	Ala	Gln	Arg	Val	Asp	Ser	Leu	Val	Gly	Val	Gly	Pro	Ala	Asn
65					70					75					80
Gly	Leu	Leu	Trp	Ile	Gly	Leu	Gln	Arg	Gln	Ala	Arg	Gln	Cys	Gln	Pro
				85					90					95	
Gln	Arg	Pro	Leu	Arg	Gly	Phe	Ile	Trp	Thr	Thr	Gly	Asp	Gln	Asp	Thr
			100					105					110		
Ala	Phe	Thr	Asn	Trp	Ala	Gln	Pro	Ala	Thr	Glu	Gly	Pro	Cys	Pro	Ala
	115						120					125			
Gln	Arg	Cys	Ala	Ala	Leu	Glu	Ala	Ser	Gly	Glu	His	Arg	Trp	Leu	Glu
	130					135					140				
Gly	Ser	Cys	Thr	Leu	Ala	Val	Asp	Gly	Tyr	Leu	Cys	Gln	Phe	Gly	Phe
145					150					155					160
Glu	Gly	Ala	Cys	Pro	Ala	Leu	Pro	Leu	Glu	Val	Gly	Gln	Ala	Gly	Pro
				165					170					175	
Ala	Val	Tyr	Thr	Thr	Pro	Phe	Asn	Leu	Val	Ser	Ser	Glu	Phe	Glu	Trp
			180					185					190		
Leu	Pro	Phe	Gly	Ser	Val	Ala	Ala	Val	Gln	Cys	Gln	Ala	Gly	Arg	Gly
	195						200					205			
Ala	Ser	Leu	Leu	Cys	Val	Lys	Gln	Pro	Ser	Gly	Gly	Val	Gly	Trp	Ser
	210					215						220			
Gln	Thr	Gly	Pro	Leu	Cys	Pro	Gly	Thr	Gly	Cys	Gly	Pro	Asp	Asn	Gly
225					230					235					240
Gly	Cys	Glu	His	Glu	Cys	Val	Glu	Glu	Val	Asp	Gly	Ala	Val	Ser	Cys
				245					250					255	
Arg	Cys	Ser	Glu	Gly	Phe	Arg	Leu	Ala	Ala	Asp	Gly	His	Ser	Cys	Glu
			260					265					270		
Asp	Pro	Cys	Ala	Gln	Ala	Pro	Cys	Glu	Gln	Gln	Cys	Glu	Pro	Gly	Gly
	275						280					285			
Pro	Gln	Gly	Tyr	Ser	Cys	His	Cys	Arg	Leu	Gly	Phe	Arg	Pro	Ala	Glu
	290					295					300				
Asp	Asp	Pro	His	Arg	Cys	Val	Asp	Thr	Asp	Glu	Cys	Gln	Ile	Ala	Gly
305					310					315					320
Val	Cys	Gln	Gln	Met	Cys	Val	Asn	Tyr	Val	Gly	Gly	Phe	Glu	Cys	Tyr
				325					330					335	
Cys	Ser	Glu	Gly	His	Glu	Leu	Glu	Ala	Asp	Gly	Ile	Ser	Cys	Ser	Pro
			340					345					350		
Ala	Gly	Ala	Met	Gly	Ala	Gln	Ala	Ser	Gln	Asp	Leu	Arg	Asp	Glu	Leu
	355						360					365			
Leu	Asp	Gly	Gly	Glu	Glu	Gly	Glu	Asp	Glu	Glu	Glu	Pro	Trp	Glu	Asp
	370					375					380				
Phe	Asp	Gly	Thr	Trp	Thr	Glu	Glu	Gln	Gly	Ile	Leu	Trp	Leu	Ala	Pro
385					390					395					400
Thr	His	Pro	Pro	Asp	Phe	Gly	Leu	Pro	Tyr	Arg	Pro	Asn	Phe	Pro	Gln
				405					410					415	
Asp	Gly	Glu	Pro	Gln	Arg	Leu	His	Leu	Glu	Pro	Thr	Trp	Pro	Pro	Pro
			420					425					430		
Leu	Ser	Ala	Pro	Arg	Gly	Pro	Tyr	His	Ser	Ser	Val	Val	Ser	Ala	Thr
	435						440					445			
Arg	Pro	Met	Val	Ile	Ser	Ala	Thr	Arg	Pro	Thr	Leu	Pro	Ser	Ala	His
	450					455					460				
Lys	Thr	Ser	Val	Ile	Ser	Ala	Thr	Arg	Pro	Pro	Leu	Ser	Pro	Val	His
465					470					475					480
Pro	Pro	Ala	Met	Ala	Pro	Ala	Thr	Pro	Pro	Ala	Val	Phe	Ser	Glu	His
				485					490					495	
Gln	Ile	Pro	Lys	Ile	Lys	Ala	Asn	Tyr	Pro	Asp	Leu	Pro	Phe	Gly	His
			500				505						510		
Lys	Pro	Gly	Ile	Thr	Ser	Ala	Thr	His	Pro	Ala	Arg	Ser	Pro	Pro	Tyr
	515						520					525			
Gln	Pro	Pro	Ile	Ile	Ser	Thr	Asn	Tyr	Pro	Gln	Val	Phe	Pro	Pro	His

530		535		540
Gln Ala Pro Met Ser	Pro Asp Thr His Thr	Ile Thr Tyr Leu Pro	Pro	
545	550	555	560	
Val Pro Pro His Leu	Asp Pro Gly Asp Thr	Ser Lys Ala His	Gln	
	565	570	575	
His Pro Leu Leu Pro	Asp Ala Pro Gly Ile Arg	Thr Gln Ala Pro	Gln	
	580	585	590	
Leu Ser Val Ser Ala	Leu Gln Pro Pro Leu	Pro Thr Asn Ser Arg	Ser	
	595	600	605	
Ser Val His Glu Thr	Pro Val Pro Ala Ala	Asn Gln Pro Pro	Ala Phe	
	610	615	620	
Pro Ser Ser Pro Leu	Pro Pro Gln Arg Pro	Thr Asn Gln Thr	Ser Ser	
625	630	635	640	
Ile Ser Pro Thr His	Ser Tyr Ser Arg Ala	Pro Leu Val Pro	Arg Glu	
	645	650	655	
Gly Val Pro Ser Pro	Lys Ser Val Pro Gln	Leu Pro Ser Val	Pro Ser	
	660	665	670	
Thr Ala Ala Pro Thr	Ala Leu Ala Glu Ser	Gly Leu Ala Gly	Gln Ser	
	675	680	685	
Gln Arg Asp Asp Arg	Trp Leu Leu Val Ala	Leu Leu Val Pro	Thr Cys	
	690	695	700	
Val Phe Leu Val Val	Leu Leu Ala Leu Gly	Ile Val Tyr Cys	Thr Arg	
705	710	715	720	
Cys Gly Ser His Ala	Pro Asn Lys Arg Ile	Thr Asp Cys Tyr	Arg Trp	
	725	730	735	
Val Thr His Ala Gly	Asn Lys Ser Ser Thr	Glu Pro Met Pro	Pro Arg	
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Gly Ser Leu Thr Gly	Val Gln Thr Cys Arg	Thr Ser Val		
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 <212> PRT
 <213> Mus musculus

<400> 191
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35 40 45
Gly Gly Ala His Asn Pro Ala Arg Arg Arg Val Val Cys Gly Gly Gly
50 55 60
Asp Leu Pro Glu Pro Pro Asp Pro Gly Leu Leu Pro Asn Gly Thr Ile
65 70 75 80
Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser
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Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Ser Asn Val
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Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr
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Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile
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Tyr Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys
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Trp Leu Leu Pro Trp Ala Arg Asn His Ser Leu Gln Leu Ser Glu Arg

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Thr	Leu	Cys	Ala	Tyr	Pro	Ser	Ala	Leu	His	Ala	His	Ala	Leu	Ser
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Leu	Gln	Glu	Ser	Gln	Leu	Arg	Cys	Glu	Gly	Ala	Leu	Glu	Leu	His
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His	Tyr	Leu	Ile	Pro	Ser	Leu	Arg	Gln	Val	Val	Phe	Gln	Gly	Asp
				245				250						255
Leu	Pro	Phe	Gln	Cys	Ser	Ala	Ser	Tyr	Leu	Gly	Asn	Asp	Thr	Arg
			260					265					270	
His	Trp	Tyr	His	Asn	Gly	Ala	Pro	Met	Glu	Ser	Asp	Glu	Gln	Ala
		275					280					285		
Ile	Val	Leu	Ala	Glu	Asn	Leu	Ile	His	Asp	Cys	Thr	Phe	Ile	Thr
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Glu	Leu	Thr	Leu	Ser	His	Ile	Gly	Val	Trp	Ala	Ser	Gly	Glu	Trp
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Cys	Ser	Val	Ser	Thr	Val	Gln	Gly	Asn	Thr	Ser	Lys	Lys	Val	Glu
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Val	Val	Leu	Glu	Thr	Ser	Ala	Ser	Tyr	Cys	Pro	Ala	Glu	Arg	Val
			340					345					350	
Asn	Asn	Arg	Gly	Asp	Phe	Arg	Trp	Pro	Arg	Thr	Leu	Ala	Gly	Ile
		355					360					365		
Ala	Tyr	Gln	Ser	Cys	Leu	Gln	Tyr	Pro	Phe	Thr	Ser	Val	Pro	Leu
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Arg	Trp	Glu	Pro	Gly	Asp	Tyr	Ser	His	Cys	Leu	Tyr	Thr	Asn	Asp
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Thr	Arg	Val	Leu	Tyr	Thr	Phe	Val	Leu	Met	Pro	Ile	Asn	Ala	Ser
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Ala	Leu	Thr	Leu	Ala	His	Gln	Leu	Arg	Val	Tyr	Thr	Ala	Glu	Ala
		435					440					445		
Ser	Phe	Ser	Asp	Met	Met	Asp	Val	Val	Tyr	Val	Ala	Gln	Met	Ile
	450					455					460			
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Val	Asp	Met	Ala	Ser	Asn	Leu	Met	Leu	Val	Asp	Glu	His	Leu	Leu
				485					490					495
Leu	Ala	Gln	Arg	Glu	Asp	Lys	Ala	Cys	Ser	Gly	Ile	Val	Gly	Ala
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Val	Ser	Gly	Ala	Gln	Pro	Ser	Ser	Val	Gly	Gln	Asp	Ala	Pro	Val
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Pro	Glu	Pro	Leu	Ala	Asp	Gln	Gln	Leu	Arg	Phe	Arg	Cys	Thr	Thr
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Arg	Pro	Asn	Ile	Ser	Leu	Ser	Ser	Phe	His	Ile	Lys	Asn	Ser	Val
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Leu	Ala	Ser	Ile	Gln	Leu	Pro	Pro	Ser	Leu	Phe	Ser	Thr	Leu	Pro
	610					615					620			
Ala	Leu	Ala	Pro	Pro	Val	Pro	Pro	Asp	Cys	Thr	Leu	Gln	Leu	Leu
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Phe	Arg	Asn	Gly	Arg	Leu	Phe	Arg	Ser	His	Gly	Asn	Asn	Thr	Ser
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Pro	Gly	Ala	Ala	Gly	Pro	Gly	Lys	Arg	Arg	Gly	Val	Ala	Thr	Pro
			660						665				670	
Ile	Phe	Ala	Gly	Thr	Ser	Gly	Cys	Gly	Val	Gly	Asn	Leu	Thr	Glu
		675					680					685		

Val	Ala	Val	Ser	Leu	Arg	His	Trp	Ala	Glu	Gly	Ala	Asp	Pro	Met	Ala
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Ala	Trp	Trp	Asn	Gln	Asp	Gly	Pro	Gly	Gly	Trp	Ser	Ser	Glu	Gly	Cys
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Arg	Leu	Arg	Tyr	Ser	Gln	Pro	Asn	Val	Ser	Ser	Leu	Tyr	Cys	Gln	His
				725					730					735	
Leu	Gly	Asn	Val	Ala	Val	Leu	Met	Glu	Leu	Asn	Ala	Phe	Pro	Arg	Glu
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Ala	Gly	Gly	Ser	Gly	Ala	Gly	Leu	His	Pro	Val	Val	Tyr	Pro	Cys	Thr
		755					760					765			
Ala	Leu	Leu	Leu	Leu	Cys	Leu	Phe	Ser	Thr	Ile	Ile	Thr	Tyr	Ile	Leu
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Asn	His	Ser	Ser	Ile	His	Val	Ser	Arg	Lys	Gly	Trp	His	Met	Leu	Leu
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Asn	Leu	Cys	Phe	His	Met	Ala	Met	Thr	Ser	Ala	Val	Phe	Val	Gly	Gly
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Val	Thr	Leu	Thr	Asn	Tyr	Gln	Met	Val	Cys	Gln	Ala	Val	Gly	Ile	Thr
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Arg	Val	Leu	His	Lys	Glu	Leu	Ser	Trp	Arg	Ala	Pro	Pro	Leu	Glu	Glu
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865					870					875					880
Ile	Ala	Gly	Gly	Ile	Pro	Leu	Ile	Ile	Cys	Gly	Ile	Thr	Ala	Ala	Val
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Asn	Ile	His	Asn	Tyr	Arg	Asp	His	Ser	Pro	Tyr	Cys	Trp	Leu	Val	Trp
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Arg	Pro	Ser	Leu	Gly	Ala	Phe	Tyr	Ile	Pro	Val	Ala	Leu	Ile	Leu	Pro
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Glu	Glu	Leu	Arg	Gly	Ser	Thr	Arg	Leu	Arg	Ser	Ser	Gly	Val	Leu	Leu
				965					970					975	
Asn	Asp	Ser	Gly	Ser	Leu	Leu	Ala	Thr	Val	Ser	Ala	Gly	Val	Gly	Thr
			980					985					990		
Pro	Ala	Pro	Pro	Glu	Asp	Gly	Asp	Gly	Val	Tyr	Ser	Pro	Gly	Val	Gln
		995				1000						1005			
Leu	Gly	Ala	Leu	Met	Thr	Thr	His	Phe	Leu	Tyr	Leu	Ala	Met	Trp	Ala
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Cys	Gly	Ala	Leu	Ala	Val	Ser	Gln	Arg	Trp	Leu	Pro	Arg	Val	Val	Cys
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Ser	Cys	Leu	Tyr	Gly	Val	Ala	Ala	Ser	Ala	Leu	Gly	Leu	Phe	Val	Phe
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Thr	His	His	Cys	Ala	Arg	Arg	Arg	Asp	Val	Arg	Ala	Ser	Trp	Arg	Ala
			1060					1065					1070		
Cys	Cys	Pro	Pro	Ala	Ser	Pro	Ser	Ala	Ser	His	Val	Pro	Ala	Arg	Ala
		1075						1080				1085			
Leu	Pro	Thr	Ala	Thr	Glu	Asp	Gly	Ser	Pro	Val	Leu	Gly	Glu	Gly	Pro
1090					1095						1100				
Ala	Ser	Leu	Lys	Ser	Ser	Pro	Ser	Gly	Ser	Ser	Gly	Arg	Ala	Pro	Pro
1105					1110						1115				1120
Pro	Pro	Cys	Lys	Leu	Thr	Asn	Leu	Gln	Val	Ala	Gln	Ser	Gln	Val	Cys
				1125					1130					1135	
Glu	Ala	Ser	Val	Ala	Ala	Arg	Gly	Asp	Gly	Glu	Pro	Glu	Pro	Thr	Gly
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Ser	Arg	Gly	Ser	Leu	Ala	Pro	Arg	His	His	Asn	Asn	Leu	His	His	Gly
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Arg	Arg	Val	His	Lys	Ser	Arg	Ala	Lys	Gly	His	Arg	Ala	Gly	Glu	Thr

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 Ala Pro Glu Leu Leu Ser Ser Glu Ser Gly Ser Leu His Asn Ser Pro
 1205 1210 1215
 Ser Asp Ser Tyr Pro Gly Ser Ser Arg Asn Ser Pro Gly Asp Gly Leu
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 Pro Leu Glu Gly Glu Pro Met Leu Thr Pro Ser Glu Gly Ser Asp Thr
 1235 1240 1245
 Ser Ala Ala Pro Ile Ala Glu Thr Gly Arg Pro Gly Gln Arg Arg Ser
 1250 1255 1260
 Ala Ser Arg Asp Asn Leu Lys Gly Ser Gly Ser Ala Leu Glu Arg Glu
 1265 1270 1275 1280
 Ser Lys Arg Arg Ser Tyr Pro Leu Asn Thr Thr Ser Leu Asn Gly Ala
 1285 1290 1295
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 Pro Arg Glu Ser Pro Ala Gln Val Leu Lys Pro Gly Lys Thr Gln Leu
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 Ser Gln Asp Leu Gly Gly Gly Ser Leu Ala Ile Asp Thr Leu Pro Asp
 65 70 75 80
 Asn Arg Thr Arg Val Val Glu Asp Asn His Asn Tyr Tyr Val Ser Arg
 85 90 95
 Val Tyr Gly Pro Gly Glu Lys Gln Ser Gln Asp Leu Trp Val Asp Leu
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 Ala Val Ala Asn Arg Ser His Val Lys Ile His Arg Ile Leu Ser Ser
 115 120 125
 Ser His Arg Gln Ala Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe
 130 135 140
 Tyr Gly His Pro Leu Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile
 145 150 155 160
 Phe Met Gly Asp Met Leu His Arg Met Leu Thr Ala Thr Gln Tyr Val
 165 170 175
 Ala Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr
 180 185 190
 Val Ala Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His
 195 200 205
 Val Tyr Leu Gln Asp Arg Glu Asp Arg Gly Ser Phe Thr Phe Gln Ala
 210 215 220
 Ala Leu His Arg Asp Gly Arg Ile Val Phe Gly Tyr Lys Glu Ile Pro
 225 230 235 240
 Met Ala Val Leu Asp Ile Ser Ser Ala Gln His Pro Val Lys Ala Gly
 245 250 255
 Leu Ser Asp Ala Phe Met Ile Leu Asn Ser Ser Pro Glu Val Pro Glu

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				85					90				Glu
Arg	Glu	Gln	Ile	Arg	Gln	Gly	Leu	Glu	Leu	Gln	Lys	Val	Leu
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Gly	Gly	Asp	Thr	Tyr	Met	His	Glu	Gly	Phe	Glu	Arg	Ala	Ser
		115					120					125	Glu
Ile	Tyr	Tyr	Glu	Asn	Ser	Gln	Gly	Tyr	Arg	Thr	Ala	Ser	Val
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Ala	Leu	Thr	Asp	Gly	Glu	Leu	His	Glu	Asp	Leu	Phe	Phe	Tyr
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Arg	Glu	Ala	Asn	Arg	Ser	Arg	Asp	Leu	Gly	Ala	Ile	Val	Tyr
			165					170					Cys
Gly	Val	Lys	Asp	Phe	Asn	Glu	Thr	Gln	Leu	Ala	Arg	Ile	Ala
			180					185					Asp
Lys	Asp	His	Val	Phe	Pro	Val	Asn	Asp	Gly	Phe	Gln	Ala	Leu
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Glu	Pro	Ser	Thr	Ile	Cys	Ala	Gly	Glu	Ser	Phe	Gln	Val	Val
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			245					250					Cys
Phe	Lys	Ile	Asn	Asp	Ser	Val	Thr	Leu	Asn	Glu	Lys	Pro	Phe
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Met	Lys	Ala	Ala	Leu	Gln	Val	Ser	Met	Asn	Asp	Gly	Leu	Ser
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Ser	Ser	Ser	Val	Ile	Ile	Thr	Thr	Thr	His	Cys	Ser	Asp	Gly
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Leu	Trp	Trp	Phe	Trp	Pro	Leu	Cys	Cys	Thr	Val	Ile	Ile	Lys
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Pro	Pro	Pro	Pro	Val	Glu	Glu	Ser	Glu	Glu	Glu	Asp	Asp	Gly
	355						360					365	Leu
Pro	Lys	Lys	Lys	Trp	Pro	Thr	Val	Asp	Ala	Ser	Tyr	Tyr	Gly
	370					375					380		Arg
Gly	Val	Gly	Gly	Ile	Lys	Arg	Met	Glu	Val	Arg	Trp	Gly	Glu
	385				390					395			Lys
Ser	Thr	Glu	Glu	Gly	Ala	Lys	Leu	Glu	Lys	Ala	Lys	Asn	Ala
			405					410					Arg
Lys	Met	Pro	Glu	Gln	Glu	Tyr	Glu	Phe	Pro	Glu	Pro	Arg	Asn
	420							425					Leu
Asn	Asn	Met	Arg	Arg	Pro	Ser	Ser	Pro	Arg	Lys	Trp	Tyr	Ser
	435						440					445	Pro
Lys	Gly	Lys	Leu	Asp	Ala	Leu	Trp	Val	Leu	Leu	Arg	Lys	Gly
	450					455					460		Tyr
Arg	Val	Ser	Val	Met	Arg	Pro	Gln	Pro	Gly	Asp	Thr	Gly	Arg
	465				470				475				Cys
Asn	Phe	Thr	Arg	Val	Lys	Asn	Ser	Gln	Pro	Ala	Lys	Tyr	Pro
			485					490					Leu
Asn	Thr	Tyr	His	Pro	Ser	Ser	Pro	Pro	Pro	Ala	Pro	Ile	Tyr
	500							505				510	Thr
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Pro	Pro	Ile	Pro	Ser	Pro	Pro	Ser	Thr	Leu	Pro	Pro	Pro	Gln
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Ser Val

<210> 195
<211> 2565
<212> DNA
<213> Homo sapiens

<400> 195

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<211> 757
<212> PRT
<213> Homo sapiens

<400> 196

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Ser	Cys	Tyr	Ala	Leu	Phe	Pro	Arg	Arg	Arg	Thr	Phe	Leu	Glu	Ala	Trp
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Arg	Ala	Cys	Arg	Glu	Leu	Gly	Gly	Asp	Leu	Ala	Thr	Pro	Arg	Thr	Pro
	50					55					60				
Glu	Glu	Ala	Gln	Arg	Val	Asp	Ser	Leu	Val	Gly	Ala	Gly	Pro	Ala	Ser
65					70					75					80
Arg	Leu	Leu	Trp	Ile	Gly	Leu	Gln	Arg	Gln	Ala	Arg	Gln	Cys	Gln	Leu
				85					90					95	
Gln	Arg	Pro	Leu	Arg	Gly	Phe	Thr	Trp	Thr	Thr	Gly	Asp	Gln	Asp	Thr
			100					105					110		
Ala	Phe	Thr	Asn	Trp	Ala	Gln	Pro	Ala	Ser	Gly	Gly	Pro	Cys	Pro	Ala
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Gln	Arg	Cys	Val	Ala	Leu	Glu	Ala	Ser	Gly	Glu	His	Arg	Trp	Leu	Glu
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Gly	Ser	Cys	Thr	Leu	Ala	Val	Asp	Gly	Tyr	Leu	Cys	Gln	Phe	Gly	Phe
145					150					155					160
Glu	Gly	Ala	Cys	Pro	Ala	Leu	Gln	Asp	Glu	Ala	Gly	Gln	Ala	Gly	Pro
				165					170					175	
Ala	Val	Tyr	Thr	Thr	Pro	Phe	His	Leu	Val	Ser	Thr	Glu	Phe	Glu	Trp
			180					185					190		
Leu	Pro	Phe	Gly	Ser	Val	Ala	Ala	Val	Gln	Cys	Gln	Ala	Gly	Arg	Gly
		195					200					205			
Ala	Ser	Leu	Leu	Cys	Val	Lys	Gln	Pro	Glu	Gly	Gly	Val	Gly	Trp	Ser
	210					215					220				
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225					230					235					240
Gly	Cys	Glu	His	Glu	Cys	Val	Glu	Glu	Val	Asp	Gly	His	Val	Ser	Cys
				245					250					255	
Arg	Cys	Thr	Glu	Gly	Phe	Arg	Leu	Ala	Ala	Asp	Gly	Arg	Ser	Cys	Glu
			260					265					270		
Asp	Pro	Cys	Ala	Gln	Ala	Pro	Cys	Glu	Gln	Gln	Cys	Glu	Pro	Gly	Gly
		275					280					285			
Pro	Gln	Gly	Tyr	Ser	Cys	His	Cys	Arg	Leu	Gly	Phe	Arg	Pro	Ala	Glu
		290				295					300				
Asp	Asp	Pro	His	Arg	Cys	Val	Asp	Thr	Asp	Glu	Cys	Gln	Ile	Ala	Gly
305					310					315					320
Val	Cys	Gln	Gln	Met	Cys	Val	Asn	Tyr	Val	Gly	Gly	Phe	Glu	Cys	Tyr
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Cys	Ser	Glu	Gly	His	Glu	Leu	Glu	Ala	Asp	Gly	Ile	Ser	Cys	Ser	Pro
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Ala	Gly	Ala	Met	Gly	Ala	Gln	Ala	Ser	Gln	Asp	Leu	Gly	Asp	Glu	Leu
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Leu	Asp	Asp	Gly	Glu	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Ala	Trp	Lys	Ala
	370					375					380				
Phe	Asn	Gly	Gly	Trp	Thr	Glu	Met	Pro	Gly	Ile	Leu	Trp	Met	Glu	Pro
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Thr	Gln	Pro	Pro	Asp	Phe	Ala	Leu	Ala	Tyr	Arg	Pro	Ser	Phe	Pro	Glu
				405					410					415	
Asp	Arg	Glu	Pro	Gln	Ile	Pro	Tyr	Pro	Glu	Pro	Thr	Trp	Pro	Pro	Pro
			420					425					430		
Leu	Ser	Ala	Pro	Arg	Val	Pro	Tyr	His	Ser	Ser	Val	Leu	Ser	Val	Thr
		435					440					445			
Arg	Pro	Val	Val	Val	Ser	Ala	Thr	His	Pro	Thr	Leu	Pro	Ser	Ala	His
	450					455					460				
Gln	Pro	Pro	Val	Ile	Pro	Ala	Thr	His	Pro	Ala	Leu	Ser	Arg	Asp	His
465					470					475					480
Gln	Ile	Pro	Val	Ile	Ala	Ala	Asn	Tyr	Pro	Asp	Leu	Pro	Ser	Ala	Tyr
				485					490					495	
Gln	Pro	Gly	Ile	Leu	Ser	Val	Ser	His	Ser	Ala	Gln	Pro	Pro	Ala	His

500					505					510					
Gln	Pro	Pro	Met	Ile	Ser	Thr	Lys	Tyr	Pro	Glu	Leu	Phe	Pro	Ala	His
		515					520					525			
Gln	Ser	Pro	Met	Phe	Pro	Asp	Thr	Arg	Val	Ala	Gly	Thr	Gln	Thr	Thr
		530				535					540				
Thr	His	Leu	Pro	Gly	Ile	Pro	Pro	Asn	His	Ala	Pro	Leu	Val	Thr	Thr
545					550					555					560
Leu	Gly	Ala	Gln	Leu	Pro	Pro	Gln	Ala	Pro	Asp	Ala	Leu	Val	Leu	Arg
			565						570					575	
Thr	Gln	Ala	Thr	Gln	Leu	Pro	Ile	Ile	Pro	Thr	Ala	Gln	Pro	Ser	Leu
			580					585					590		
Thr	Thr	Thr	Ser	Arg	Ser	Pro	Val	Ser	Pro	Ala	His	Gln	Ile	Ser	Val
		595					600					605			
Pro	Ala	Ala	Thr	Gln	Pro	Ala	Ala	Leu	Pro	Thr	Leu	Leu	Pro	Ser	Gln
		610				615					620				
Ser	Pro	Thr	Asn	Gln	Thr	Ser	Pro	Ile	Ser	Pro	Thr	His	Pro	His	Ser
625					630					635					640
Lys	Ala	Pro	Gln	Ile	Pro	Arg	Glu	Asp	Gly	Pro	Ser	Pro	Lys	Leu	Ala
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Leu	Trp	Leu	Pro	Ser	Pro	Ala	Pro	Thr	Ala	Ala	Pro	Thr	Ala	Leu	Gly
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Val	Ala	Leu	Leu	Val	Pro	Thr	Cys	Val	Phe	Leu	Val	Val	Leu	Leu	Ala
		690				695					700				
Leu	Gly	Ile	Val	Tyr	Cys	Thr	Arg	Cys	Gly	Pro	His	Ala	Pro	Asn	Lys
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			725						730					735	
Pro	Thr	Glu	Pro	Met	Pro	Pro	Arg	Gly	Ser	Leu	Thr	Gly	Val	Gln	Thr
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<210> 197
 <211> 2973
 <212> DNA
 <213> Homo sapiens

<400> 197					
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<210> 198
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 198

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			20					25					30		
Ser	Ser	Ile	Val	Ser	Arg	Phe	Leu	Asn	Gly	Arg	Phe	Glu	Asp	Gln	Tyr
		35					40					45			
Thr	Pro	Thr	Ile	Glu	Asp	Phe	His	Arg	Lys	Val	Tyr	Asn	Ile	Arg	Gly
		50				55					60				
Asp	Met	Tyr	Gln	Leu	Asp	Ile	Leu	Asp	Thr	Ser	Gly	Asn	His	Pro	Phe
65				70						75				80	
Pro	Ala	Met	Arg	Arg	Leu	Ser	Ile	Leu	Thr	Gly	Asp	Val	Phe	Ile	Leu
				85					90					95	
Val	Phe	Ser	Leu	Asp	Asn	Arg	Glu	Ser	Phe	Asp	Glu	Val	Lys	Arg	Leu
			100					105					110		
Gln	Lys	Gln	Ile	Leu	Glu	Val	Lys	Ser	Cys	Leu	Lys	Asn	Lys	Thr	Lys
		115					120					125			
Glu	Ala	Ala	Glu	Leu	Pro	Met	Val	Ile	Cys	Gly	Asn	Lys	Asn	Asp	His
		130				135					140				
Gly	Glu	Leu	Cys	Arg	Gln	Val	Pro	Thr	Thr	Glu	Ala	Glu	Leu	Leu	Val
145					150					155					160
Ser	Gly	Asp	Glu	Asn	Cys	Ala	Tyr	Phe	Glu	Val	Ser	Ala	Lys	Lys	Asn
				165					170					175	
Thr	Asn	Val	Asp	Glu	Met	Phe	Tyr	Val	Leu	Phe	Ser	Met	Ala	Lys	Leu
			180					185					190		
Pro	His	Glu	Met	Ser	Pro	Ala	Leu	His	Arg	Lys	Ile	Ser	Val	Gln	Tyr

	195		200		205										
Gly	Asp	Ala	Phe	His	Pro	Arg	Pro	Phe	Cys	Met	Arg	Arg	Val	Lys	Glu
	210					215					220				
Met	Asp	Ala	Tyr	Gly	Met	Val	Ser	Pro	Phe	Ala	Arg	Arg	Pro	Ser	Val
225					230					235					240
Asn	Ser	Asp	Leu	Lys	Tyr	Ile	Lys	Ala	Lys	Val	Leu	Arg	Glu	Gly	Gln
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Ala	Arg	Glu	Arg	Asp	Lys	Cys	Thr	Ile	Gln						
			260					265							

<210> 199
 <211> 2159
 <212> DNA
 <213> Homo sapiens

<400> 199

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aaccgagcaa	gcgtcggcca	agactctcct	gagcccagaa	gcttcacaga	cctgctgctg	300
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<210> 200
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 200

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 Gly Asp Gln Ile Leu Asp Trp Gln Tyr Gly Val Thr Gln Ala Phe Pro
 35 40 45
 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg
 50 55 60
 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala
 65 70 75 80
 Ser Val Gly Gln Asp Ser Pro Glu Pro Arg Ser Phe Thr Asp Leu Leu
 85 90 95
 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
 100 105 110
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser
 115 120 125
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
 130 135 140
 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
 145 150 155 160
 Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr
 165 170 175
 Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met
 180 185 190
 Leu Thr Ala Thr Gln Tyr Ile Ala Pro Leu Met Ala Asn Phe Asp Pro
 195 200 205
 Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala
 210 215 220
 Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu
 225 230 235 240
 Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile
 245 250 255
 Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr
 260 265 270
 Asn His Pro Val Lys Val Gly Leu Ser Asp Ala Phe Val Val Val His
 275 280 285
 Arg Ile Gln Gln Ile Pro Asn Val Arg Arg Arg Thr Ile Tyr Glu Tyr
 290 295 300
 His Arg Val Glu Leu Gln Met Ser Lys Ile Thr Asn Ile Ser Ala Val
 305 310 315 320
 Glu Met Thr Pro Leu Pro Thr Cys Leu Gln Phe Asn Arg Cys Gly Pro
 325 330 335
 Cys Val Ser Ser Gln Ile Gly Phe Asn Cys Ser Trp Cys Ser Lys Leu
 340 345 350
 Gln Arg Cys Ser Ser Gly Phe Asp Arg His Arg Gln Asp Trp Val Asp
 355 360 365
 Ser Gly Cys Pro Glu Glu Ser Lys Glu Lys Met Cys Glu Asn Thr Glu
 370 375 380
 Pro Val Glu Thr Ser Ser Arg Thr Thr Thr Thr Ile Gly Ala Thr Thr
 385 390 395 400
 Thr Gln Phe Arg Val Leu Thr Thr Thr Arg Arg Ala Val Thr Ser Gln
 405 410 415
 Phe Pro Thr Ser Leu Pro Thr Glu Asp Asp Thr Lys Ile Ala Leu His
 420 425 430
 Leu Lys Asp Asn Gly Ala Ser Thr Asp Asp Ser Ala Ala Glu Lys Lys
 435 440 445
 Gly Gly Thr Leu His Ala Gly Leu Ile Val Gly Ile Leu Ile Leu Val
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 Pro Thr Ser Ala Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser Arg
 485 490 495
 Trp Pro Ala Met Lys Phe Arg Arg Gly Ser Gly His Pro Ala Tyr Ala

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Gln	Ser	Ile	Val	Gln	Gly	Pro	Gly	Thr	Leu	Gly	Arg	Val	Val	Asp	Asp
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Arg	Ile	Ala	Gly	Lys	Ala	Pro	Lys	Lys	Lys	Ser	Leu	Ser	Asp	Pro	Ser
			820					825					830		
Arg	Arg	Gly	Glu	Leu	Ala	Gly	Pro	Gly	Phe	Glu	Gly	Pro	Gly	Gly	Glu
		835				840						845			
Pro	Ile	Arg	Glu	Val	Glu	Pro	Met	Leu	Pro	Pro	Ser	Ser	Ser	Glu	Pro
		850				855					860				
Ile	Leu	Val	Glu	Gln	Arg	Ala	Glu	Pro	Glu	Glu	Pro	Gly	Ala	Thr	Arg
865					870					875					880
Ser	Arg	Ala	Gln	Ser	Glu	Arg	Ala	Leu	Pro	Glu	Ala	Leu	Pro	Pro	Pro
				885					890					895	
Ala	Thr	Ala	His	Arg	Asn	Phe	His	Leu	Asp	Pro	Lys	Leu	Ala	Asp	Ile
			900				905						910		
Leu	Ser	Pro	Arg	Leu	Ile	Arg	Arg	Gly	Ser	Lys	Lys	Arg	Pro	Ala	Arg
		915					920					925			
Ser	Ser	His	Gln	Glu	Leu	Arg	Arg	Asp	Glu	Gly	Ser	Gln	Asp	Gln	Thr

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Gly Ser Leu Ser Arg Ala Arg Pro Ser Ser Arg His Val Arg His Ala				
945		950		955
Ser Val Pro Ala Thr Phe Met Pro Ile Val Val Pro Glu Pro Pro Thr				
	965		970	975
Ser Val Gly Pro Pro Val Ala Val Pro Glu Pro Ile Gly Phe Pro Thr				
	980		985	990
Arg Ala His Pro Thr Leu Gln Ala Pro Ser Leu Glu Asp Val Thr Lys				
	995	1000		1005
Gln Tyr Met Leu Asn Leu His Ser Gly Glu Val Pro Ala Pro Val Pro				
	1010	1015		1020
Val Asp Met Pro Cys Leu Pro Leu Ala Ala Pro Pro Ser Ala Glu Ala				
1025		1030		1035
Lys Pro Pro Glu Ala Ala Arg Pro Ala Asp Glu Pro Thr Pro Ala Ser				
	1045		1050	1055
Lys Cys Cys Ser Lys Pro Gln Val Asp Met Arg Lys His Val Ala Met				
	1060		1065	1070
Thr Leu Leu Asp Thr Glu Gln Ser Tyr Val Glu Ser Leu Arg Thr Leu				
	1075	1080		1085
Met Gln Gly Tyr Met Gln Pro Leu Lys Gln Pro Glu Asn Ser Val Leu				
	1090	1095		1100
Cys Asp Pro Ser Leu Val Asp Glu Ile Phe Asp Gln Ile Pro Glu Leu				
1105		1110		1115
Leu Glu His His Glu Gln Phe Leu Glu Gln Val Arg His Cys Met Gln				
	1125		1130	1135
Thr Trp His Ala Gln Gln Lys Val Gly Ala Leu Leu Val Gln Ser Phe				
	1140		1145	1150
Ser Lys Asp Val Leu Val Asn Ile Tyr Ser Ala Tyr Ile Asp Asn Phe				
	1155		1160	1165
Leu Asn Ala Lys Asp Ala Val Arg Val Ala Lys Glu Ala Arg Pro Ala				
	1170	1175		1180
Phe Leu Lys Phe Leu Glu Gln Ser Met Arg Glu Asn Lys Glu Lys Gln				
1185		1190		1195
Ala Leu Ser Asp Leu Met Ile Lys Pro Val Gln Arg Ile Pro Arg Tyr				
	1205		1210	1215
Glu Leu Leu Val Lys Asp Leu Leu Lys His Thr Pro Glu Asp His Pro				
	1220		1225	1230
Asp His Pro Leu Leu Leu Glu Ala Gln Arg Asn Ile Lys Gln Val Ala				
	1235		1240	1245
Glu Arg Ile Asn Lys Gly Val Arg Ser Ala Glu Glu Ala Glu Arg His				
1250		1255		1260
Ala Arg Val Leu Gln Glu Ile Glu Ala His Ile Glu Gly Met Glu Asp				
1265		1270		1275
Leu Gln Ala Pro Leu Arg Arg Phe Leu Arg Gln Glu Met Val Ile Glu				
	1285		1290	1295
Val Lys Ala Ile Gly Gly Lys Lys Asp Arg Ser Leu Phe Leu Phe Thr				
	1300		1305	1310
Asp Leu Ile Val Cys Thr Thr Leu Lys Arg Lys Ser Gly Ser Leu Arg				
	1315		1320	1325
Arg Ser Ser Met Ser Leu Tyr Thr Ala Ala Ser Val Ile Asp Thr Ala				
	1330		1335	1340
Ser Lys Tyr Lys Met Leu Trp Lys Leu Pro Leu Glu Asp Ala Asp Ile				
1345		1350		1355
Ile Lys Gly Ala Ser Gln Ala Thr Asn Arg Glu Asn Ile Gln Lys Ala				
	1365		1370	1375
Ile Ser Arg Leu Asp Glu Asp Leu Thr Thr Leu Gly Gln Met Ser Lys				
	1380		1385	1390
Leu Ser Glu Ser Leu Gly Phe Pro His Gln Ser Leu Asp Asp Ala Leu				
	1395		1400	1405
Arg Asp Leu Ser Ala Ala Met His Arg Asp Leu Ser Glu Lys Gln Ala				
1410		1415		1420

Leu Cys Tyr Ala Leu Ser Phe Pro Pro Thr Lys Leu Glu Leu Cys Ala
 1425 1430 1435 1440
 Thr Arg Pro Glu Gly Thr Asp Ser Tyr Ile Phe Glu Phe Pro His Pro
 1445 1450 1455
 Asp Ala Arg Leu Gly Phe Glu Gln Ala Phe Asp Glu Ala Lys Arg Lys
 1460 1465 1470
 Leu Ala Ser Ser Lys Ser Cys Leu Asp Pro Glu Phe Leu Lys Ala Ile
 1475 1480 1485
 Pro Ile Met Lys Thr Arg Ser Gly Met Gln Phe Ser Cys Ala Ala Pro
 1490 1495 1500
 Thr Leu Asn Ser Cys Pro Glu Pro Ser Pro Glu Val Trp Val Cys Asn
 1505 1510 1515 1520
 Ser Asp Gly Tyr Val Gly Gln Val Cys Leu Leu Ser Leu Arg Ala Glu
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 Pro Asp Val Glu Ala Cys Ile Ala Val Cys Ser Ala Arg Ile Leu Cys
 1540 1545 1550
 Ile Gly Ala Val Pro Gly Leu Gln Pro Arg Cys His Arg Glu Pro Pro
 1555 1560 1565
 Pro Ser Leu Arg Ser Pro Pro Glu Thr Ala Pro Glu Pro Ala Gly Pro
 1570 1575 1580
 Glu Leu Asp Val Glu Ala Ala Ala Asp Glu Glu Ala Ala Thr Leu Ala
 1585 1590 1595 1600
 Glu Pro Gly Pro Gln Pro Cys Leu His Ile Ser Ile Ala Gly Ser Gly
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 Leu Glu Met Thr Pro Gly Leu Gly Glu Gly Asp Pro Arg Pro Glu Leu
 1620 1625 1630
 Val Pro Phe Asp Ser Asp Ser Asp Glu Ser Ser Pro Ser Pro Ser
 1635 1640 1645
 Gly Thr Leu Gln Ser Gln Ala Ser Arg Ser Thr Ile Ser Ser Ser Phe
 1650 1655 1660
 Gly Asn Glu Glu Thr Pro Ser Ser Lys Glu Ala Thr Ala Glu Thr Thr
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 Ser Ser Glu Glu Glu Gln Glu Pro Gly Phe Leu Pro Leu Ser Gly Ser
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 1700 1705 1710
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 1715 1720 1725
 Leu Leu Ser Val Asp Pro Glu Ala Tyr Gln Ser Ser Val Trp Leu Gly
 1730 1735 1740
 Thr Glu Asp Gly Cys Val His Val Tyr Gln Ser Ser Asp Ser Ile Arg
 1745 1750 1755 1760
 Asp Arg Arg Asn Ser Met Lys Leu Gln His Ala Ala Ser Val Thr Cys
 1765 1770 1775
 Ile Leu Tyr Leu Asn Asn Gln Val Phe Val Ser Leu Ala Asn Gly Glu
 1780 1785 1790
 Leu Val Val Tyr Gln Arg Glu Ala Gly His Phe Trp Asp Pro Gln Asn
 1795 1800 1805
 Phe Lys Ser Val Thr Leu Gly Thr Gln Gly Ser Pro Ile Thr Lys Met
 1810 1815 1820
 Val Ser Val Gly Gly Arg Leu Trp Cys Gly Cys Gln Asn Arg Val Leu
 1825 1830 1835 1840
 Val Leu Ser Pro Asp Thr Leu Gln Leu Glu His Met Phe Tyr Val Gly
 1845 1850 1855
 Gln Asp Ser Ser Arg Cys Val Ala Cys Met Val Asp Ser Ser Leu Gly
 1860 1865 1870
 Val Trp Val Thr Leu Lys Gly Ser Ala His Val Cys Leu Tyr His Pro
 1875 1880 1885
 Asp Thr Phe Glu Gln Leu Ala Glu Val Asp Val Thr Pro Pro Val His
 1890 1895 1900
 Arg Met Leu Ala Gly Ser Asp Ala Ile Ile Arg Gln His Lys Ala Ala

1905		1910		1915		1920
Cys Leu Arg Ile Thr Ala Leu Leu Val Cys Glu Glu Leu Leu Trp Val						
	1925			1930		1935
Gly Thr Ser Ala Gly Val Val Leu Thr Met Pro Thr Ser Pro Gly Thr						
	1940			1945		1950
Val Ser Cys Pro Arg Ala Pro Leu Ser Pro Thr Gly Leu Gly Gln Gly						
	1955			1960		1965
His Thr Gly His Val Arg Phe Leu Ala Ala Val Gln Leu Pro Asp Gly						
	1970			1975		1980
Phe Asn Leu Leu Cys Pro Thr Pro Pro Pro Pro Asp Thr Gly Pro						
	1985			1990		1995
Glu Lys Leu Pro Ser Leu Glu His Arg Asp Ser Pro Trp His Arg Gly						
	2000			2005		2010
Pro Ala Pro Ala Arg Pro Lys Met Leu Val Ile Ser Gly Gly Asp Gly						
	2015			2020		2025
Tyr Glu Asp Phe Arg Leu Ser Ser Gly Gly Gly Ser Ser Ser Glu Thr						
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 <213> Homo sapiens

<400> 205

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			20				25					30			
Ala	Leu	Pro	Pro	Asp	Val	His	His	Leu	His	Ala	Glu	Arg	Arg	Gly	Pro
			35				40					45			
Gln	Pro	Trp	His	Ala	Ala	Leu	Pro	Ser	Ser	Pro	Ala	Pro	Ala	Pro	Ala
			50			55					60				
Thr	Gln	Glu	Ala	Pro	Arg	Pro	Ala	Ser	Ser	Leu	Arg	Pro	Pro	Arg	Cys
65					70					75					80
Gly	Val	Pro	Asp	Pro	Ser	Asp	Gly	Leu	Ser	Ala	Arg	Asn	Arg	Gln	Lys
			85						90					95	
Arg	Phe	Val	Leu	Ser	Gly	Gly	Arg	Trp	Glu	Lys	Thr	Asp	Leu	Thr	Tyr
			100					105					110		
Arg	Ile	Leu	Arg	Phe	Pro	Trp	Gln	Leu	Val	Gln	Glu	Gln	Val	Arg	Gln
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Thr	Met	Ala	Glu	Ala	Leu	Lys	Val	Trp	Ser	Asp	Val	Thr	Pro	Leu	Thr
			130			135					140				
Phe	Thr	Glu	Val	His	Glu	Gly	Arg	Ala	Asp	Ile	Met	Ile	Asp	Phe	Ala
145					150					155					160
Arg	Tyr	Trp	His	Gly	Asp	Asp	Leu	Pro	Phe	Asp	Gly	Pro	Gly	Gly	Ile
			165						170					175	
Leu	Ala	His	Ala	Phe	Phe	Pro	Lys	Thr	His	Arg	Glu	Gly	Asp	Val	His
			180					185					190		
Phe	Asp	Tyr	Asp	Glu	Thr	Trp	Thr	Ile	Gly	Asp	Asp	Gln	Gly	Thr	Asp
			195				200					205			
Leu	Leu	Gln	Val	Ala	Ala	His	Ala	Leu	Met	Ser	Ala	Phe	Tyr	Thr	Phe
			210			215						220			
His	Thr	Thr	Ala	Ala	Lys	Ala	Leu	Met	Ser	Ala	Phe	Tyr	Thr	Phe	Arg
225					230					235					240
Tyr	Pro	Leu	Ser	Leu	Ser	Pro	Asp	Asp	Cys	Arg	Gly	Val	Gln	His	Leu
			245						250					255	
Tyr	Gly	Gln	Pro	Trp	Pro	Thr	Val	Thr	Ser	Arg	Thr	Pro	Ala	Leu	Gly
			260					265					270		
Pro	Gln	Ala	Gly	Ile	Asp	Thr	Asn	Glu	Ile	Ala	Pro	Leu	Glu	Pro	Asp
			275				280						285		
Ala	Pro	Pro	Asp	Ala	Cys	Glu	Ala	Ser	Phe	Asp	Ala	Val	Ser	Thr	Ile
			290			295					300				
Arg	Gly	Glu	Leu	Phe	Phe	Phe	Lys	Ala	Gly	Phe	Val	Trp	Arg	Leu	Arg
305					310					315					320
Gly	Gly	Gln	Leu	Gln	Pro	Gly	Tyr	Pro	Ala	Leu	Ala	Ser	Arg	His	Trp
			325						330					335	
Gln	Gly	Leu	Pro	Ser	Pro	Val	Asp	Ala	Ala	Phe	Glu	Asp	Ala	Gln	Gly
			340					345					350		
His	Ile	Trp	Phe	Phe	Gln	Gly	Ala	Gln	Tyr	Trp	Val	Tyr	Asp	Gly	Glu
			355				360					365			
Lys	Pro	Val	Leu	Gly	Pro	Ala	Pro	Leu	Thr	Glu	Leu	Gly	Leu	Val	Arg
			370			375					380				
Phe	Pro	Val	His	Ala	Ala	Leu	Val	Trp	Gly	Pro	Glu	Lys	Asn	Lys	Ile
385					390					395					400
Tyr	Phe	Phe	Arg	Gly	Arg	Asp	Tyr	Trp	Arg	Phe	His	Pro	Ser	Thr	Arg

[illegible]

<400> 207

147

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cacatagtga	tggttcccct	gttcactcta	cttagcatgt	ccctaccgag	tctcttctcc	2940
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 <212> PRT
 <213> Homo sapiens

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			20					25					30		
Pro	Ile	Ile	Lys	Phe	Pro	Gly	Asp	Val	Ala	Pro	Lys	Thr	Asp	Lys	Glu
			35				40					45			
Leu	Ala	Val	Gln	Tyr	Leu	Asn	Thr	Phe	Tyr	Gly	Cys	Pro	Lys	Glu	Ser
	50					55					60				
Cys	Asn	Leu	Phe	Val	Leu	Lys	Asp	Thr	Leu	Lys	Lys	Met	Gln	Lys	Phe
65					70					75				80	
Phe	Gly	Leu	Pro	Gln	Thr	Gly	Asp	Leu	Asp	Gln	Asn	Thr	Ile	Glu	Thr
				85				90						95	
Met	Arg	Lys	Pro	Arg	Cys	Gly	Asn	Pro	Asp	Val	Ala	Asn	Tyr	Asn	Phe
			100					105					110		
Phe	Pro	Arg	Lys	Pro	Lys	Trp	Asp	Lys	Asn	Gln	Ile	Thr	Tyr	Arg	Ile
			115				120					125			
Ile	Gly	Tyr	Thr	Pro	Asp	Leu	Asp	Pro	Glu	Thr	Val	Asp	Asp	Ala	Phe
	130					135					140				
Ala	Arg	Ala	Phe	Gln	Val	Trp	Ser	Asp	Val	Thr	Pro	Leu	Arg	Phe	Ser
145					150					155				160	
Arg	Ile	His	Asp	Gly	Glu	Ala	Asp	Ile	Met	Ile	Asn	Phe	Gly	Arg	Trp
				165				170						175	
Glu	His	Gly	Asp	Gly	Tyr	Pro	Phe	Asp	Gly	Lys	Asp	Gly	Leu	Leu	Ala
			180					185					190		
His	Ala	Phe	Ala	Pro	Gly	Thr	Gly	Val	Gly	Gly	Asp	Ser	His	Phe	Asp
	195						200					205			
Asp	Asp	Glu	Leu	Trp	Thr	Leu	Gly	Glu	Gly	Gln	Val	Val	Arg	Val	Lys
	210					215					220				
Tyr	Gly	Asn	Ala	Asp	Gly	Glu	Tyr	Cys	Lys	Phe	Pro	Phe	Leu	Phe	Asn
225					230					235				240	
Gly	Lys	Glu	Tyr	Asn	Ser	Cys	Thr	Asp	Thr	Gly	Arg	Ser	Asp	Gly	Phe
				245					250					255	
Leu	Trp	Cys	Ser	Thr	Thr	Tyr	Asn	Phe	Glu	Lys	Asp	Gly	Lys	Tyr	Gly
			260					265						270	
Phe	Cys	Pro	His	Glu	Ala	Leu	Phe	Thr	Met	Gly	Gly	Asn	Ala	Glu	Gly
	275						280					285			
Gln	Pro	Cys	Lys	Phe	Pro	Phe	Arg	Phe	Gln	Gly	Thr	Ser	Tyr	Asp	Ser
	290					295					300				
Cys	Thr	Thr	Glu	Gly	Arg	Thr	Asp	Gly	Tyr	Arg	Trp	Cys	Gly	Thr	Thr
305					310					315				320	
Glu	Asp	Tyr	Asp	Arg	Asp	Lys	Lys	Tyr	Gly	Phe	Cys	Pro	Glu	Thr	Ala
				325					330					335	
Met	Ser	Thr	Val	Gly	Gly	Asn	Ser	Glu	Gly	Ala	Pro	Cys	Val	Phe	Pro
			340					345					350		
Phe	Thr	Phe	Leu	Gly	Asn	Lys	Tyr	Glu	Ser	Cys	Thr	Ser	Ala	Gly	Arg

355					360					365				
Ser	Asp	Gly	Lys	Met	Trp	Cys	Ala	Thr	Thr	Ala	Asn	Tyr	Asp	Asp
370						375					380			
Arg	Lys	Trp	Gly	Phe	Cys	Pro	Asp	Gln	Gly	Tyr	Ser	Leu	Phe	Leu
385					390					395				400
Ala	Ala	His	Glu	Phe	Gly	His	Ala	Met	Gly	Leu	Glu	His	Ser	Gln
				405					410					415
Pro	Gly	Ala	Leu	Met	Ala	Pro	Ile	Tyr	Thr	Tyr	Thr	Lys	Asn	Phe
			420					425					430	
Leu	Ser	Gln	Asp	Asp	Ile	Lys	Gly	Ile	Gln	Glu	Leu	Tyr	Gly	Ala
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Pro	Asp	Ile	Asp	Leu	Gly	Thr	Gly	Pro	Thr	Pro	Thr	Leu	Gly	Pro
		450				455					460			Val
Thr	Pro	Glu	Ile	Cys	Lys	Gln	Asp	Ile	Val	Phe	Asp	Gly	Ile	Ala
465					470					475				480
Ile	Arg	Gly	Glu	Ile	Phe	Phe	Phe	Lys	Asp	Arg	Phe	Ile	Trp	Arg
				485					490					495
Val	Thr	Pro	Arg	Asp	Lys	Pro	Met	Gly	Pro	Leu	Leu	Val	Ala	Thr
			500					505					510	Phe
Trp	Pro	Glu	Leu	Pro	Glu	Lys	Ile	Asp	Ala	Val	Tyr	Glu	Ala	Pro
		515					520					525		Gln
Glu	Glu	Lys	Ala	Val	Phe	Phe	Ala	Gly	Asn	Glu	Tyr	Trp	Ile	Tyr
		530					535				540			Ser
Ala	Ser	Thr	Leu	Glu	Arg	Gly	Tyr	Pro	Lys	Pro	Leu	Thr	Ser	Leu
545					550					555				560
Leu	Pro	Pro	Asp	Val	Gln	Arg	Val	Asp	Ala	Phe	Asn	Trp	Ser	Lys
				565					570					575
Asn	Lys	Lys	Thr	Tyr	Ile	Phe	Ala	Gly	Asp	Lys	Phe	Trp	Arg	Tyr
			580					585					590	Asn
Glu	Val	Lys	Lys	Met	Asp	Pro	Gly	Phe	Pro	Lys	Leu	Ile	Ala	Asp
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Ala	Trp	Asn	Ala	Ile	Pro	Asp	Asn	Leu	Asp	Ala	Val	Val	Asp	Leu
		610				615					620			Gln
Gly	Gly	Gly	His	Ser	Tyr	Phe	Phe	Lys	Gly	Ala	Tyr	Tyr	Leu	Lys
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Glu	Asn	Gln	Ser	Leu	Lys	Ser	Val	Lys	Phe	Gly	Ser	Ile	Lys	Ser
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 <213> Homo sapiens

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65 70 75 80
Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser
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Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Asn Asn Ile
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115 120 125
Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr
130 135 140
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145 150 155 160
Phe Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys
165 170 175
Val Val Asp Leu Gly Thr Glu Phe Leu Thr Cys Asp Cys His Leu Arg
180 185 190
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<212> DNA
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Gly	Asn	Ala	Leu	Glu	Tyr	Val	Ser	Arg	Asn	Ile	Phe	Lys	Arg	Pro	Leu			
		1315					1320					1325						
Gly	Ser	Arg	Ile	Glu	Glu	Gly	Val	Pro	Gln	Phe	Leu	Val	Leu	Ile	Ser			
		1330				1335					1340							
Ser	Gly	Lys	Ser	Asp	Asp	Glu	Val	Val	Val	Pro	Ala	Val	Glu	Leu	Lys			
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Gln	Phe	Gly	Val	Ala	Pro	Phe	Thr	Ile	Ala	Arg	Asn	Ala	Asp	Gln	Glu			
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Glu	Leu	Val	Lys	Ile	Ser	Leu	Ser	Pro	Glu	Tyr	Val	Phe	Ser	Val	Ser			
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Thr	Phe	Arg	Glu	Leu	Pro	Ser	Leu	Glu	Gln	Lys	Leu	Leu	Thr	Pro	Ile			
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Thr Thr Leu Thr Ser Glu Gln Ile Gln Lys Leu Leu Ala Ser Thr Arg
 1410 1415 1420
 Tyr Pro Pro Pro Ala Val Glu Ser Asp Ala Ala Asp Ile Val Phe Leu
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 Val Arg Val Gly Val Val Gln Phe Ser Asn Asp Val Phe Pro Glu Phe
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 Tyr Leu Lys Thr Tyr Arg Ser Gln Ala Pro Val Leu Asp Ala Ile Arg
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 Glu Asp Gly Val Pro Gln His Leu Val Leu Val Leu Gly Gly Lys Ser
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 Cys Pro Gly Val Thr Asp Ala Ala Lys Ala Cys Asn Leu Asp Val Ile
 1825 1830 1835 1840
 Leu Gly Phe Asp Gly Ser Arg Asp Gln Asn Val Phe Val Ala Gln Lys
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 Val Val Ala Asn Thr Pro Ser Gly Pro Val Glu Ala Phe Asp Phe Asp

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Glu Tyr Gln Pro Glu Met Leu Glu Lys Phe Arg Asn Met Arg Ser Gln		
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His Pro Tyr Val Leu Thr Glu Asp Thr Leu Lys Val Tyr Leu Asn Lys		1920
	1925	1930
Phe Arg Gln Ser Ser Pro Asp Ser Val Lys Val Val Ile His Phe Thr		1935
	1940	1945
Asp Gly Ala Asp Gly Asp Leu Ala Asp Leu His Arg Ala Ser Glu Asn		1950
	1955	1960
Leu Arg Gln Glu Gly Val Arg Ala Leu Ile Leu Val Gly Leu Glu Arg		1965
	1970	1975
Val Val Asn Leu Glu Arg Leu Met His Leu Glu Phe Gly Arg Gly Phe		1980
1985	1990	1995
Met Tyr Asp Arg Pro Leu Arg Leu Asn Leu Leu Asp Leu Asp Tyr Glu		2000
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Pro Cys Lys Cys Ser Gly Gln Arg Gly Asp Arg Gly Pro Ile Gly Ser		2030
	2035	2040
Ile Gly Pro Lys Gly Ile Pro Gly Glu Asp Gly Tyr Arg Gly Tyr Pro		2045
	2050	2055
Gly Asp Glu Gly Gly Pro Gly Glu Arg Gly Pro Pro Gly Val Asn Gly		2060
2065	2070	2075
Thr Gln Gly Phe Gln Gly Cys Pro Gly Gln Arg Gly Val Lys Gly Ser		2080
	2085	2090
Arg Gly Phe Pro Gly Glu Lys Gly Glu Val Gly Glu Ile Gly Leu Asp		2095
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Gly Leu Asp Gly Glu Asp Gly Asp Lys Gly Leu Pro Gly Ser Ser Gly		2110
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Glu Lys Gly Asn Pro Gly Arg Arg Gly Asp Lys Gly Pro Arg Gly Glu		2125
	2130	2135
Lys Gly Glu Arg Gly Asp Val Gly Ile Arg Gly Asp Pro Gly Asn Pro		2140
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Gly Gln Asp Ser Gln Glu Arg Gly Pro Lys Gly Glu Thr Gly Asp Leu		2160
	2165	2170
Gly Pro Met Gly Val Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly		2175
	2180	2185
Glu Thr Gly Lys Asn Gly Gly Phe Gly Arg Arg Gly Pro Pro Gly Ala		2190
	2195	2200
Lys Gly Asn Lys Gly Gly Pro Gly Gln Pro Gly Phe Glu Gly Glu Gln		2205
	2210	2215
Gly Thr Arg Gly Ala Gln Gly Pro Ala Gly Pro Ala Gly Pro Pro Gly		2220
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Leu Ile Gly Glu Gln Gly Ile Ser Gly Pro Arg Gly Ser Gly Gly Ala		2240
	2245	2250
Arg Gly Ala Pro Gly Glu Arg Gly Arg Thr Gly Pro Leu Gly Arg Lys		2255
	2260	2265
Gly Glu Pro Gly Glu Pro Gly Pro Lys Gly Gly Ile Gly Asn Pro Gly		2270
	2275	2280
Pro Arg Gly Glu Thr Gly Asp Asp Gly Arg Asp Gly Val Gly Ser Glu		2285
	2290	2295
Gly Arg Arg Gly Lys Lys Gly Glu Arg Gly Phe Pro Gly Tyr Pro Gly		2300
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Pro Lys Gly Asn Pro Gly Glu Pro Gly Leu Asn Gly Thr Thr Gly Pro		2320
	2325	2330
Lys Gly Ile Arg Gly Arg Arg Gly Asn Ser Gly Pro Pro Gly Ile Val		2335
	2340	2345
Gly Gln Lys Gly Arg Pro Gly Tyr Pro Gly Pro Ala Gly Pro Arg Gly		2350
	2355	2360
Asn Arg Gly Asp Ser Ile Asp Gln Cys Ala Leu Ile Gln Ser Ile Lys		2365
	2370	2375
		2380

Asp	Lys	Cys	Pro	Cys	Cys	Tyr	Gly	Pro	Leu	Glu	Cys	Pro	Val	Phe	Pro	2385	2390	2395	2400
Thr	Glu	Leu	Ala	Phe	Ala	Leu	Asp	Thr	Ser	Glu	Gly	Val	Asn	Gln	Asp	2405	2410	2415	
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Thr	Tyr	Asn	Asn	Glu	Val	Thr	Thr	Glu	Ile	Arg	Phe	Ala	Asp	Ser	Lys	2450	2455	2460	
Arg	Lys	Ser	Val	Leu	Leu	Asp	Lys	Ile	Lys	Asn	Leu	Gln	Val	Ala	Leu	2465	2470	2475	2480
Thr	Ser	Lys	Gln	Gln	Ser	Leu	Glu	Thr	Ala	Met	Ser	Phe	Val	Ala	Arg	2485	2490	2495	
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Val	Phe	Phe	Ser	Asn	Thr	Pro	Thr	Arg	Ala	Ser	Pro	Gln	Leu	Arg	Glu	2515	2520	2525	
Ala	Val	Leu	Lys	Leu	Ser	Asp	Ala	Gly	Ile	Thr	Pro	Leu	Phe	Leu	Thr	2530	2535	2540	
Arg	Gln	Glu	Asp	Arg	Gln	Leu	Ile	Asn	Ala	Leu	Gln	Ile	Asn	Asn	Thr	2545	2550	2555	2560
Ala	Val	Gly	His	Ala	Leu	Val	Leu	Pro	Ala	Gly	Arg	Asp	Leu	Thr	Asp	2565	2570	2575	
Phe	Leu	Glu	Asn	Val	Leu	Thr	Cys	His	Val	Cys	Leu	Asp	Ile	Cys	Asn	2580	2585	2590	
Ile	Asp	Pro	Ser	Cys	Gly	Phe	Gly	Ser	Trp	Arg	Pro	Ser	Phe	Arg	Asp	2595	2600	2605	
Arg	Arg	Ala	Ala	Gly	Ser	Asp	Val	Asp	Ile	Asp	Met	Ala	Phe	Ile	Leu	2610	2615	2620	
Asp	Ser	Ala	Glu	Thr	Thr	Thr	Leu	Phe	Gln	Phe	Asn	Glu	Met	Lys	Lys	2625	2630	2635	2640
Tyr	Ile	Ala	Tyr	Leu	Val	Arg	Gln	Leu	Asp	Met	Ser	Pro	Asp	Pro	Lys	2645	2650	2655	
Ala	Ser	Gln	His	Phe	Ala	Arg	Val	Ala	Val	Val	Gln	His	Ala	Pro	Ser	2660	2665	2670	
Glu	Ser	Val	Ser	Met	Pro	Pro	Val	Lys	Val	Glu	Phe	Ser	Leu	Thr	Asp	2675	2680	2685	
Tyr	Gly	Ser	Lys	Glu	Lys	Leu	Val	Asp	Phe	Leu	Ser	Arg	Gly	Met	Thr	2690	2695	2700	
Gln	Leu	Gln	Gly	Thr	Arg	Ala	Leu	Gly	Ser	Ala	Ile	Glu	Tyr	Thr	Ile	2705	2710	2715	2720
Glu	Asn	Val	Phe	Glu	Ser	Ala	Pro	Asn	Pro	Arg	Asp	Leu	Lys	Ile	Val	2725	2730	2735	
Val	Leu	Met	Leu	Thr	Gly	Glu	Val	Pro	Glu	Gln	Gln	Leu	Glu	Glu	Ala	2740	2745	2750	
Gln	Arg	Val	Ile	Leu	Gln	Ala	Lys	Cys	Lys	Gly	Tyr	Phe	Phe	Val	Val	2755	2760	2765	
Leu	Gly	Ile	Gly	Arg	Lys	Val	Asn	Ile	Lys	Glu	Val	Tyr	Thr	Phe	Ala	2770	2775	2780	
Ser	Glu	Pro	Asn	Asp	Val	Phe	Phe	Lys	Leu	Val	Asp	Lys	Ser	Thr	Glu	2785	2790	2795	2800
Leu	Asn	Glu	Glu	Pro	Leu	Met	Arg	Phe	Gly	Arg	Leu	Leu	Pro	Ser	Phe	2805	2810	2815	
Val	Ser	Ser	Glu	Asn	Ala	Phe	Tyr	Leu	Ser	Pro	Asp	Ile	Arg	Lys	Gln	2820	2825	2830	
Cys	Asp	Trp	Phe	Gln	Gly	Asp	Gln	Pro	Thr	Lys	Asn	Leu	Val	Lys	Phe	2835	2840	2845	
Gly	His	Lys	Gln	Val	Asn	Val	Pro	Asn	Asn	Val	Thr	Ser	Ser	Pro	Thr	2850	2855	2860	
Ser	Asn	Pro	Val	Thr	Thr	Thr	Lys	Pro	Val	Thr	Thr	Thr	Lys	Pro	Val				

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 Lys Pro Ala Thr Thr Lys Pro Val Val Lys Met Leu Arg Glu Val Gln
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 2995 3000 3005
 Glu Pro Pro Gly Pro Tyr Phe Tyr Asp Leu Thr Val Thr Ser Ala His
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 Asp Gln Ser Leu Val Leu Lys Gln Asn Leu Thr Val Thr Asp Arg Val
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 3045 3050 3055
 Tyr Leu Arg Ser Gln Val Arg Ala Thr Tyr His Gly Ser Phe Ser Thr
 3060 3065 3070
 Lys Lys Ser Gln Pro Pro Pro Pro Gln Pro Ala Arg Ser Ala Ser Ser
 3075 3080 3085
 Ser Thr Ile Asn Leu Met Val Ser Thr Glu Pro Leu Ala Leu Thr Glu
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 Thr Asp Ile Cys Lys Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe
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 Ile Leu Lys Trp Tyr Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg Phe
 3125 3130 3135
 Trp Tyr Gly Gly Cys Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys
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 35 40 45
 His Phe Ala Ile Ser Glu Tyr Asn Lys Ala Thr Glu Asp Glu Tyr Tyr
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 Arg Arg Pro Leu Gln Val Leu Arg Ala Arg Glu Gln Thr Phe Gly Gly
 65 70 75 80
 Val Asn Tyr Phe Phe Asp Val Glu Val Gly Arg Thr Ile Cys Thr Lys
 85 90 95
 Ser Gln Pro Asn Leu Asp Thr Cys Ala Phe His Glu Gln Pro Glu Leu
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130

135

140

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 <212> PRT
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 35 40 45
 His Phe Ala Ile Ser Glu Tyr Asn Lys Ala Thr Lys Asp Asp Tyr Tyr
 50 55 60
 Arg Arg Pro Leu Arg Val Leu Arg Ala Arg Gln Gln Thr Val Gly Gly
 65 70 75 80
 Val Asn Tyr Phe Phe Asp Val Glu Val Gly Arg Thr Ile Cys Thr Lys
 85 90 95
 Ser Gln Pro Asn Leu Asp Thr Cys Ala Phe His Glu Gln Pro Glu Leu
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 <212> PRT
 <213> Homo sapiens

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 Ser His Leu Gly Gln Ser Tyr Ala Asp Arg Asp Val Trp Lys Pro Glu
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 Pro Cys Gln Ile Cys Val Cys Asp Ser Gly Ser Val Leu Cys Asp Asp
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 Ile Ile Cys Asp Asp Gln Glu Leu Asp Cys Pro Asn Pro Glu Ile Pro
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 Phe Gly Glu Cys Cys Ala Val Cys Pro Gln Pro Pro Thr Ala Pro Thr
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 Arg Pro Pro Asn Gly Gln Gly Pro Gln Gly Pro Lys Gly Asp Pro Gly
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 Pro Pro Gly Ile Pro Gly Arg Asn Gly Asp Pro Gly Ile Pro Gly Gln
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 Pro Thr Gly Pro Gln Asn Tyr Ser Pro Gln Tyr Asp Ser Tyr Asp Val
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 Lys Ser Gly Val Ala Val Gly Gly Leu Ala Gly Tyr Pro Gly Pro Ala
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 Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Thr Ser Gly His Pro Gly
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 Ser Pro Gly Ser Pro Gly Tyr Gln Gly Pro Pro Gly Glu Pro Gly Gln
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 210 215 220
 Gly Pro Ala Gly Lys Asp Gly Glu Ser Gly Arg Pro Gly Arg Pro Gly
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 Glu Arg Gly Leu Pro Gly Pro Pro Gly Ile Lys Gly Pro Ala Gly Ile
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 Pro Gly Phe Pro Gly Met Lys Gly His Arg Gly Phe Asp Gly Arg Asn
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 Gly Glu Lys Gly Glu Thr Gly Ala Pro Gly Leu Lys Gly Glu Asn Gly
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 Pro Gly Glu Arg Gly Arg Pro Gly Leu Pro Gly Ala Ala Gly Ala Arg
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 Gly Glu Pro Gly Pro Gln Gly His Ala Gly Ala Gln Gly Pro Pro Gly
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 Pro Pro Gly Ile Asn Gly Ser Pro Gly Gly Lys Gly Glu Met Gly Pro

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Gln	Gly	Leu	Pro	Gly	Thr	Gly	Gly	Pro	Pro	Gly	Glu	Asn	Gly	Lys
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Ala	Gly	Ala	Pro	Gly	Leu	Arg	Gly	Gly	Ala	Gly	Pro	Pro	Gly	Pro
	690				695						700			Glu
Gly	Gly	Lys	Gly	Ala	Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ala	Ala
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Thr	Pro	Gly	Leu	Gln	Gly	Met	Pro	Gly	Glu	Arg	Gly	Gly	Leu	Gly
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Lys	Gly	Glu	Gly	Gly	Pro	Pro	Gly	Val	Ala	Gly	Pro	Pro	Gly	Gly
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Val Phe Gly Lys Glu Asp Leu Ser Lys Asp Asp Arg Phe Pro Asp Tyr
  35          40          45
Gly Lys Val Glu Leu Val Phe Ser Ala Thr Pro Glu Lys Ile Gln Gly
  50          55          60
Ser Glu His Leu Tyr Asn Asp His Gly Val Ile Val Asp Tyr Asn Thr
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Thr Asp Pro Leu Ile Arg Trp Asp Ser Tyr Glu Asn Leu Ser Ala Asp
  85          90          95
Gly Glu Val Leu His Thr Gln Gly Pro Val Asp Gly Ser Leu Tyr Ala
  100          105          110
Lys Val Arg Lys Lys Ser Ser Ser Asp Pro Gly Ile Pro Gly Gly Pro
  115          120          125
Gln Ala Ile Pro Ala Thr Asn Ser Pro Asp His Ser Asp His Thr Leu
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Ser Val Ser Ser Asp Ser Gly His Ser Thr Ala Ser Ala Arg Thr Asp
  145          150          155          160
Lys Thr Glu Glu Arg Leu Ala Pro Gly Thr Arg Arg Gly Leu Ser Ala
  165          170          175
Gln Glu Lys Ala Glu Leu Asp Gln Leu Leu Ser Gly Phe Gly Leu Glu
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Asp Pro Gly Ser Ser Leu Lys Glu Met Thr Asp Ala Arg Ser Lys Tyr
  195          200          205
Ser Gly Thr Arg His Val Val Pro Ala Gln Val His Val Asn Gly Asp
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Ala Ala Leu Lys Asp Arg Glu Thr Asp Ile Leu Asp Asp Glu Met Pro
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His His Asp Leu His Ser Val Asp Ser Leu Gly Thr Leu Ser Ser Ser
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Glu Gly Pro Gln Ser Ala His Leu Gly Pro Phe Thr Cys His Lys Ser
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Ser Gln Asn Ser Leu Leu Ser Asp Gly Phe Gly Ser Asn Val Gly Glu
  275          280          285
Asp Pro Gln Gly Thr Leu Val Pro Asp Leu Gly Leu Gly Met Asp Gly
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Pro Tyr Glu Arg Glu Arg Thr Phe Gly Ser Arg Glu Pro Lys Gln Pro
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Gln Pro Leu Leu Arg Lys Pro Ser Val Ser Ala Gln Met Gln Ala Tyr
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Gln	Arg	Gly	Val	Gly	Ser	Gly	Pro	His	Pro	Pro	Asp	Thr	Gln	Gln	Pro
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Ser	Pro	Ser	Lys	Ala	Phe	Lys	Pro	Arg	Phe	Pro	Gly	Asp	Gln	Val	Val
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Asn	Gly	Ala	Gly	Pro	Glu	Leu	Ser	Thr	Gly	Pro	Ser	Pro	Gly	Ser	Pro
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Thr	Leu	Asp	Ile	Asp	Gln	Ser	Ile	Glu	Gln	Leu	Asn	Arg	Leu	Ile	Leu
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Glu	Leu	Asp	Pro	Thr	Phe	Glu	Pro	Ile	Pro	Thr	His	Met	Asn	Ala	Leu
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Gly	Ser	Gln	Ala	Asn	Gly	Ser	Val	Ser	Pro	Asp	Ser	Val	Gly	Gly	Gly
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Leu	Arg	Ala	Ser	Ser	Arg	Leu	Pro	Asp	Thr	Gly	Glu	Gly	Pro	Ser	Arg
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Ala	Thr	Gly	Arg	Gln	Gly	Ser	Ser	Ala	Glu	Gln	Pro	Leu	Gly	Gly	Arg
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Leu	Arg	Lys	Leu	Ser	Leu	Gly	Gln	Tyr	Asp	Asn	Asp	Ala	Gly	Gly	Gln
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Pro	Asn	Leu	Pro	Pro	Phe	Pro	Ser	Pro	Ala	Asp	Val	Lys	Glu	Thr	Met
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Ser	Thr	Pro	Ser	Phe	Gln	Gln	Ala	Phe	Ala	Ser	Ser	Cys	Thr	Ile	Ser
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Lys	Asp	Ser	Pro	Val	Leu	Ser	Cys	Phe	Pro	Pro	Ser	Glu	Leu	Gln	Ala
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Pro	Phe	His	Ser	His	Glu	Leu	Ser	Leu	Ala	Glu	Pro	Pro	Asp	Ser	Leu
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Ala	Pro	Pro	Ser	Ser	Gln	Ala	Phe	Leu	Gly	Phe	Gly	Thr	Ala	Pro	Val
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Gly	Ser	Gly	Leu	Pro	Pro	Glu	Glu	Asp	Leu	Gly	Ala	Leu	Leu	Ala	Asn
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Ser	His	Gly	Ala	Ser	Pro	Thr	Pro	Ser	Ile	Pro	Leu	Thr	Ala	Thr	Gly
				805					810					815	
Ala	Ala	Asp	Asn	Gly	Phe	Leu	Ser	His	Asn	Phe	Leu	Thr	Val	Ala	Pro

Met Gly Asp Val Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala
165 170 175
Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val
180 185 190
Val Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val
195 200 205
Tyr Leu Gln Gly Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala
210 215 220
Leu His His Asp Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met
225 230 235 240
Ser Val Pro Glu Ile Ser Ser Ser Gln His Pro Val Lys Thr Gly Leu
245 250 255
Ser Asp Ala Phe Met Ile Leu Asn Pro Ser Pro Asp Val Pro Glu Ser
260 265 270
Arg Arg Arg Ser Ile Phe Glu Tyr His Arg Ile Glu Leu Asp Pro Ser
275 280 285
Lys Val Thr Ser Met Ser Ala Val Glu Phe Thr Pro Leu Pro Thr Cys
290 295 300
Leu Gln His Arg Ser Cys Asp Ala Cys Met Ser Ser Asp Leu Thr Phe
305 310 315 320
Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp
325 330 335
Arg Tyr Arg Gln Glu Trp Met Asp Tyr Gly Cys Ala Gln Glu Ala Glu
340 345 350
Gly Arg Met Cys Glu Asp Phe Gln Asp Glu Asp His Asp Ser Ala Ser
355 360 365
Pro Asp Thr Ser Phe Ser Pro Tyr Asp Gly Asp Leu Thr Thr Thr Ser
370 375 380
Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr Glu Asp Asp Thr Lys Leu
385 390 395 400
Asn Pro Tyr Ala Gly Gly Asp Gly Leu Gln Asn Asn Leu Ser Pro Lys
405 410 415
Thr Lys Gly Thr Pro Val His Leu Gly Thr Ile Val Gly Ile Val Leu
420 425 430
Ala Val Leu Leu Val Ala Ala Ile Ile Leu Ala Gly Ile Tyr Ile Asn
435 440 445
Gly His Pro Thr Ser Asn Ala Ala Leu Phe Phe Ile Glu Arg Arg Pro
450 455 460
His His Trp Pro Ala Met Lys Phe Arg Ser His Pro Asp His Ser Thr
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Tyr Ala Glu Val Glu Pro Ser Gly His Glu Lys Glu Gly Phe Met Glu
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Ala Glu Gln Cys
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<211> 5540
<212> DNA
<213> Homo sapiens

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tgccaggagg agacacttac atgcatgaag gatttgaaag ggccagtgag cagattttatt 540
atgaaaacag acaagggtac aggacagcca gcgtcatcat tgctttgact gatggagAAC 600

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cattaataag	aaccttgata	agaaccatat	tctgttgaca	gccagctcac	agtttcttgc	4860
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 <212> PRT
 <213> Homo sapiens

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Glu	Asp Gly Gly Pro Ala Cys Tyr Gly Gly Phe Asp Leu Tyr Phe Ile
	35 40 45
Leu	Asp Lys Ser Gly Ser Val Leu His His Trp Asn Glu Ile Tyr Tyr
	50 55 60
Phe	Val Glu Gln Leu Ala His Lys Phe Ile Ser Pro Gln Leu Arg Met
65	70 75 80
Ser	Phe Ile Val Phe Ser Thr Arg Gly Thr Thr Leu Met Lys Leu Thr
	85 90 95
Glu	Asp Arg Glu Gln Ile Arg Gln Gly Leu Glu Glu Leu Gln Lys Val
	100 105 110
Leu	Pro Gly Gly Asp Thr Tyr Met His Glu Gly Phe Glu Arg Ala Ser
	115 120 125
Glu	Gln Ile Tyr Tyr Glu Asn Arg Gln Gly Tyr Arg Thr Ala Ser Val
	130 135 140
Ile	Ile Ala Leu Thr Asp Gly Glu Leu His Glu Asp Leu Phe Phe Tyr
145	150 155 160
Ser	Glu Arg Glu Ala Asn Arg Ser Arg Asp Leu Gly Ala Ile Val Tyr
	165 170 175
Cys	Val Gly Val Lys Asp Phe Asn Glu Thr Gln Leu Ala Arg Ile Ala
	180 185 190
Asp	Ser Lys Asp His Val Phe Pro Val Asn Asp Gly Phe Gln Ala Leu
	195 200 205
Gln	Gly Ile Ile His Ser Ile Leu Lys Lys Ser Cys Ile Glu Ile Leu
	210 215 220
Ala	Ala Glu Pro Ser Thr Ile Cys Ala Gly Glu Ser Phe Gln Val Val
225	230 235 240

Val Arg Gly Asn Gly Phe Arg His Ala Arg Asn Val Asp Arg Val Leu
 245 250 255
 Cys Ser Phe Lys Ile Asn Asp Ser Val Thr Leu Asn Glu Lys Pro Phe
 260 265 270
 Ser Val Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro Ile Leu Lys Glu
 275 280 285
 Val Gly Met Lys Ala Ala Leu Gln Val Ser Met Asn Asp Gly Leu Ser
 290 295 300
 Phe Ile Ser Ser Ser Val Ile Ile Thr Thr Thr His Cys Ser Asp Gly
 305 310 315 320
 Ser Ile Leu Ala Ile Ala Leu Leu Ile Leu Phe Leu Leu Leu Ala Leu
 325 330 335
 Ala Leu Leu Trp Trp Phe Trp Pro Leu Cys Cys Thr Val Ile Ile Lys
 340 345 350
 Glu Val Pro Pro Pro Pro Ala Glu Glu Ser Glu Glu Glu Asp Asp Asp
 355 360 365
 Gly Leu Pro Lys Lys Lys Trp Pro Thr Val Asp Ala Ser Tyr Tyr Gly
 370 375 380
 Gly Arg Gly Val Gly Gly Ile Lys Arg Met Glu Val Arg Trp Gly Glu
 385 390 395 400
 Lys Gly Ser Thr Glu Glu Gly Ala Lys Leu Glu Lys Ala Lys Asn Ala
 405 410 415
 Arg Val Lys Met Pro Glu Gln Glu Tyr Glu Phe Pro Glu Pro Arg Asn
 420 425 430
 Leu Asn Asn Asn Met Arg Arg Pro Ser Ser Pro Arg Lys Trp Tyr Ser
 435 440 445
 Pro Ile Lys Gly Lys Leu Asp Ala Leu Trp Val Leu Leu Arg Lys Gly
 450 455 460
 Tyr Asp Arg Val Ser Val Met Arg Pro Gln Pro Gly Asp Thr Gly Arg
 465 470 475 480
 Cys Ile Asn Phe Thr Arg Val Lys Asn Asn Gln Pro Ala Lys Tyr Pro
 485 490 495
 Leu Asn Asn Ala Tyr His Thr Ser Ser Pro Pro Pro Ala Pro Ile Tyr
 500 505 510
 Thr Pro Pro Pro Pro Ala Pro His Cys Pro Pro Pro Pro Pro Ser Ala
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 Gln Ala Pro Pro Pro Asn Arg Ala Pro Pro Pro Ser Arg Pro Pro Pro
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 Arg Pro Ser Val

<210> 233
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 <212> DNA
 <213> Homo sapiens

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 gcatgtctaa gtgctagaca tgctcagctt tgtggatacg cggactttgt tgctgcttgc 180
 agtaacctta tgcctagcaa catgccaatc tttacaagag gaaactgtaa gaaagggccc 240
 agccggagat agaggaccac gtggagaaaag gggtcacca ggccccccag gcagagatgg 300
 tgaagatggt cccacaggcc ctccctggtcc acctggctct cctggccccc ctggtctcgg 360
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tgtaagaaaa ccaaaataaa aattgaaaaa taaaaaccat aaacatttgc accacttggtg 4560
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<210> 234
<211> 1366
<212> PRT
<213> Homo sapiens

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35 40 45
Pro Pro Gly Arg Asp Gly Glu Asp Gly Pro Thr Gly Pro Pro Gly Pro
50 55 60
Pro Gly Pro Pro Gly Pro Pro Gly Leu Gly Gly Asn Phe Ala Ala Gln
65 70 75 80
Tyr Asp Gly Lys Gly Val Gly Leu Gly Pro Gly Pro Met Gly Leu Met
85 90 95
Gly Pro Arg Gly Pro Pro Gly Ala Ala Gly Ala Pro Gly Pro Gln Gly
100 105 110
Phe Gln Gly Pro Ala Gly Glu Pro Gly Glu Pro Gly Gln Thr Gly Pro
115 120 125
Ala Gly Ala Arg Gly Pro Ala Gly Pro Pro Gly Lys Ala Gly Glu Asp
130 135 140
Gly His Pro Gly Lys Pro Gly Arg Pro Gly Glu Arg Gly Val Val Gly
145 150 155 160
Pro Gln Gly Ala Arg Gly Phe Pro Gly Thr Pro Gly Leu Pro Gly Phe
165 170 175
Lys Gly Ile Arg Gly His Asn Gly Leu Asp Gly Leu Lys Gly Gln Pro
180 185 190
Gly Ala Pro Gly Val Lys Gly Glu Pro Gly Ala Pro Gly Glu Asn Gly
195 200 205
Thr Pro Gly Gln Thr Gly Ala Arg Gly Leu Pro Gly Glu Arg Gly Arg
210 215 220
Val Gly Ala Pro Gly Pro Ala Gly Ala Arg Gly Ser Asp Gly Ser Val
225 230 235 240
Gly Pro Val Gly Pro Ala Gly Pro Ile Gly Ser Ala Gly Pro Pro Gly
245 250 255
Phe Pro Gly Ala Pro Gly Pro Lys Gly Glu Ile Gly Ala Val Gly Asn
260 265 270
Ala Gly Pro Ala Gly Pro Ala Gly Pro Arg Gly Glu Val Gly Leu Pro

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Met	Thr	Gly	Phe	Pro	Gly	Ala	Ala	Gly	Arg	Thr	Gly	Pro	Pro	Gly	Pro
785					790					795					800
Ser	Gly	Ile	Ser	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Lys	Glu
				805					810					815	
Gly	Leu	Arg	Gly	Pro	Arg	Gly	Asp	Gln	Gly	Pro	Val	Gly	Arg	Thr	Gly
				820				825					830		
Glu	Val	Gly	Ala	Val	Gly	Pro	Pro	Gly	Phe	Ala	Gly	Glu	Lys	Gly	Pro
		835					840					845			
Ser	Gly	Glu	Ala	Gly	Thr	Ala	Gly	Pro	Pro	Gly	Thr	Pro	Gly	Pro	Gln
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Gly	Leu	Leu	Gly	Ala	Pro	Gly	Ile	Leu	Gly	Leu	Pro	Gly	Ser	Arg	Gly
865					870					875					880
Glu	Arg	Gly	Leu	Pro	Gly	Val	Ala	Gly	Ala	Val	Gly	Glu	Pro	Gly	Pro
				885				890						895	
Leu	Gly	Ile	Ala	Gly	Pro	Pro	Gly	Ala	Arg	Gly	Pro	Pro	Gly	Ala	Val
			900					905					910		
Gly	Ser	Pro	Gly	Val	Asn	Gly	Ala	Pro	Gly	Glu	Ala	Gly	Arg	Asp	Gly
		915					920						925		
Asn	Pro	Gly	Asn	Asp	Gly	Pro	Pro	Gly	Arg	Asp	Gly	Gln	Pro	Gly	His
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Lys	Gly	Glu	Arg	Gly	Tyr	Pro	Gly	Asn	Ile	Gly	Pro	Val	Gly	Ala	Ala
945					950					955					960
Gly	Ala	Pro	Gly	Pro	His	Gly	Pro	Val	Gly	Pro	Ala	Gly	Lys	His	Gly
				965				970						975	
Asn	Arg	Gly	Glu	Thr	Gly	Pro	Ser	Gly	Pro	Val	Gly	Pro	Ala	Gly	Ala
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Val	Gly	Pro	Arg	Gly	Pro	Ser	Gly	Pro	Gln	Gly	Ile	Arg	Gly	Asp	Lys
		995					1000						1005		
Gly	Glu	Pro	Gly	Glu	Lys	Gly	Pro	Arg	Gly	Leu	Pro	Gly	Leu	Lys	Gly
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His	Asn	Gly	Leu	Gln	Gly	Leu	Pro	Gly	Ile	Ala	Gly	His	His	Gly	Asp
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Gln	Gly	Ala	Pro	Gly	Ser	Val	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Pro	Ala
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Gln	Pro	Arg	Ser	Ala	Pro	Ser	Leu	Arg	Pro	Lys	Asp	Tyr	Glu	Val	Asp
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Tyr	Arg	Ser	Ser	Lys	Asp	Lys	Lys	His	Val	Trp	Leu	Gly	Glu	Thr	Ile
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Asn	Ala	Gly	Ser	Gln	Phe	Glu	Tyr	Asn	Val	Glu	Gly	Val	Thr	Ser	Lys
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Glu	Met	Ala	Thr	Gln	Leu	Ala	Phe	Met	Arg	Leu	Leu	Ala	Asn	Tyr	Ala

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Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp		
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Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile Leu Gln Gly Ser Asn		
	1285	1290
Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Val		
	1300	1305
Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu Trp Gly Lys Thr Ile		
	1315	1320
Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu Pro Phe Leu Asp Ile		
	1330	1335
Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu Phe Phe Val Asp Ile		
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	1365	

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 <211> 4168
 <212> DNA
 <213> Homo sapiens

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	2340

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<210> 236
<211> 1028
<212> PRT
<213> Homo sapiens

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Pro Asp Lys Ala Arg Leu Leu Arg Gln Tyr Asp Asn Glu Lys Lys Trp
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Asp Leu Ile Cys Asp Gln Glu Arg Phe Gln Val Lys Asn Pro Pro His
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Thr Tyr Ile Gln Lys Leu Gln Ser Phe Leu Asp Pro Ser Val Thr Arg
85 90 95
Lys Lys Phe Arg Arg Arg Val Gln Glu Ser Thr Lys Val Leu Arg Glu
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Phe Ala Gln Cys Ser Val Met Phe Asp Phe Glu Gly Leu Glu Ser Gly
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165 170 175
Asp Leu Gln Pro Pro Ser Ala Leu Ser Ala Pro Phe Thr Asn Ser Leu

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 Phe Asn Leu Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu
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 Lys Leu Met Glu Tyr Phe Arg Asn Glu Asp Ser Asn Ile Asp Phe Met
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 Val Ala Cys Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp
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 Met Asn Phe Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu
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 His Gln Val His Thr Leu Arg Arg Leu Ile Lys Glu Lys Glu Glu Ala
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 Phe Gln Arg Arg Cys His Leu Glu Pro Asn Val Arg Gly Leu Glu Ser
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 Val Asp Ser Glu Ala Leu Ala Arg Val Gly Pro Ala Glu Leu Ser Glu
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 Gly Met Pro Pro Ser Asp Leu Asp Leu Leu Ala Pro Ala Pro Pro Pro
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 Glu Glu Val Leu Pro Leu Pro Pro Pro Pro Ala Pro Pro Leu Pro Pro
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 Ile Lys Lys Pro Ile Lys Thr Lys Phe Arg Leu Pro Val Phe Asn Trp
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 Thr Ala Leu Lys Pro Asn Gln Ile Ser Gly Thr Val Phe Ser Glu Leu
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 Asp Asp Glu Lys Ile Leu Glu Asp Leu Asp Leu Asp Lys Phe Glu Glu
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 Lys Asn Lys Thr Ala Gln Lys Ala Ala Ser Lys Val Thr Leu Leu Glu
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 Ser Ala Glu Glu Ile Cys Arg Ala Ile His Thr Phe Asp Leu Gln Thr
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Ser	Thr	Asp	Arg	Lys	Met	Thr	Leu	Leu	His	Phe	Ile	Ala	Leu	Thr	Val
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Val	Glu	Lys	Ala	Ala	Ala	Val	Ser	Leu	Glu	Asn	Val	Leu	Leu	Asp	Val
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Ala	Val	Val	Arg	Tyr	Phe	Gly	Glu	Ser	Pro	Lys	Thr	Thr	Pro	Pro	Ser
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Lys	Gln	Leu	Ala	Gln	Glu	Ala	Lys	Lys	Leu	Asp	Ala	Lys	Thr	Pro	Ser
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Gln	Arg	Asn	Lys	Trp	Gln	Gln	Gln	Glu	Leu	Ile	Ala	Glu	Leu	Arg	Arg
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<210> 237
<211> 5641
<212> DNA
<213> Homo sapiens
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 <212> PRT
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<400> 238

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Lys	Asp	Gln	Leu	Thr	Asp	Ser	Cys	Tyr	Gln	Phe	Asn	Phe	Gln	Ser	Thr
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Ile	Lys	Gln	Glu	Val	Glu	Glu	Leu	Trp	Ile	Gly	Leu	Asn	Asp	Leu	Lys
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Leu	Gln	Met	Asn	Phe	Glu	Trp	Ser	Asp	Gly	Ser	Leu	Val	Ser	Phe	Thr
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His	Trp	His	Pro	Phe	Glu	Pro	Asn	Asn	Phe	Arg	Asp	Ser	Leu	Glu	Asp
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Cys	Val	Thr	Ile	Trp	Gly	Pro	Glu	Gly	Arg	Trp	Asn	Asp	Ser	Pro	Cys
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Gly	Glu	Tyr	Phe	Trp	Thr	Ala	Leu	Gln	Asp	Leu	Asn	Ser	Thr	Gly	Ser
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Asp	Gln	Pro	Gly	Tyr	Ser	Arg	Gly	Gly	Cys	Val	Ala	Leu	Ala	Thr	Gly
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Arg	Tyr	Ile	Cys	Arg	Gln	Ser	Leu	Gly	Thr	Pro	Val	Thr	Pro	Glu	Leu
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Pro	Gly	Pro	Asp	Pro	Thr	Pro	Ser	Leu	Thr	Gly	Ser	Cys	Pro	Gln	Gly
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Trp	Ala	Ser	Asp	Thr	Lys	Leu	Arg	Tyr	Cys	Tyr	Lys	Val	Phe	Ser	Ser
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Glu	Arg	Leu	Gln	Asp	Lys	Lys	Ser	Trp	Val	Gln	Ala	Gln	Gly	Ala	Cys

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	Cys	Ala	Val	Leu	Asp	Leu	Ala	Ser	Leu	Gln	Trp	Val	Ala	Met	Gln	Cys		
785						790										800		
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 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 240

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Met	Asp	Thr	Trp	Leu	Asn	Ala	Asp	Pro	His	Asn	Val	Val	Val	Leu	His
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Ile	Lys	Ile	Asn	Asn	Lys	Pro	Leu	Phe	Leu	His	His	Val	Ile	Met	His
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Val	Val	Gly	His	Thr	Gln	Gly	Pro	Leu	Asp	Gly	Ser	Leu	Tyr	Ala	Lys
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Thr	Arg	Pro	Thr	Leu	Ser	Ala	Thr	Pro	Asn	His	Val	Glu	His	Thr	Leu
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Lys	Thr	Asp	Glu	Pro	Val	Pro	Gly	Ala	Ser	Ser	Ala	Thr	Ala	Ala	Leu
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 Pro Gln Ser Ser Ala Ala Thr Thr Pro Gly Ser Pro Ser Leu Cys Arg
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 Pro Glu Asp Arg Arg Pro Thr Leu Ser Arg Gln Ser Ser Ala Ser Gly
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50     55     60
Ala Phe Gln Val Gln Gln Ala Val Asp Leu Arg Arg His Thr Ala Arg
65     70     75     80
Lys Ser Ser Ile Lys Ala Ala Val Pro Gly Asn Thr Ser Thr Pro Ser
85     90     95
Cys Gln Ser Thr Asn Gly Gln Pro Gln Arg Gly Ala Cys Gly Arg Trp
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Arg Gly Arg Ser Arg Ser Arg Arg Ala Ala Thr Ser Arg Pro Glu Arg
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Val Trp Pro Asp Gly Val Ile Pro Phe Val Ile Gly Gly Asn Phe Thr
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Gly Ser Gln Arg Ala Val Phe Arg Gln Ala Met Arg His Trp Glu Lys
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His Thr Cys Val Thr Phe Leu Glu Arg Thr Asp Glu Asp Ser Tyr Ile
165    170    175
Val Phe Thr Tyr Arg Pro Cys Gly Cys Cys Ser Tyr Val Gly Arg Arg
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Gly Gly Gly Pro Gln Ala Ile Ser Ile Gly Lys Asn Cys Asp Lys Phe
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245    250    255
Val Glu Ser Leu Gly Glu Thr Tyr Asp Phe Asp Ser Ile Met His Tyr
260    265    270
Ala Arg Asn Thr Phe Ser Arg Gly Ile Phe Leu Asp Thr Ile Val Pro
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Lys Tyr Glu Val Asn Gly Val Lys Pro Pro Ile Gly Gln Arg Thr Arg
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Ala	Ile	Cys	Gly	Gly	Asp	Val	Lys	Lys	Asp	Tyr	Gly	His	Ile	Gln
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Pro	Asn	Tyr	Pro	Asp	Asp	Tyr	Arg	Pro	Ser	Lys	Val	Cys	Ile	Trp
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Gly	Phe	Leu	Thr	Lys	Leu	Asn	Gly	Ser	Ile	Thr	Ser	Pro	Gly	Trp
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Lys	Glu	Tyr	Pro	Pro	Asn	Lys	Asn	Cys	Ile	Trp	Gln	Leu	Val	Ala
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Thr	Gln	Tyr	Arg	Ile	Ser	Leu	Gln	Phe	Asp	Phe	Phe	Glu	Thr	Glu
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<400> 243

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<400> 244

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<210> 246
 <211> 818
 <212> PRT
 <213> Homo sapiens

<400> 246

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Arg	Ser	Lys	Lys	Leu	Pro	Leu	Thr	Thr	Leu	Ala	Gln	Cys	Leu	Met	Glu
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Gly	Ser	Ala	Ile	Leu	Gly	Asp	Asp	Thr	Leu	Gly	Lys	Met	Leu	Lys	
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Leu	Cys	Gly	Glu	Thr	Glu	Asp	Lys	Leu	Ala	Gln	Glu	Leu	Ile	His	Phe
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Glu	Leu	Gln	Val	Glu	Arg	Asp	Val	Ile	Glu	Pro	Leu	Phe	Leu	Leu	Ala
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Glu	Val	Glu	Ile	Pro	Asn	Ile	Gln	Lys	Gln	Arg	Lys	His	Leu	Ala	Lys
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Lys	Ser	Ser	Gly	Leu	Ser	Ser	Ser	Leu	Gln	Pro	Ala	Gly	Ala	Lys	Ala
			165					170						175	
Asp	Ala	Leu	Arg	Glu	Glu	Met	Glu	Glu	Ala	Ala	Asn	Arg	Val	Glu	Ile
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Cys	Arg	Asp	Gln	Leu	Ser	Ala	Asp	Met	Tyr	Ser	Phe	Val	Ala	Lys	Glu
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Ile	Asp	Tyr	Ala	Asn	Tyr	Phe	Gln	Thr	Leu	Ile	Glu	Val	Gln	Ala	Glu
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Lys	Leu	Pro	Lys	Ala	Asn	His	Asn	Asn	Ile	Arg	Tyr	Leu	Ile	Lys	Phe
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Gln	Leu	Ser	Pro	Val	Ser	Leu	Ser	Pro	Thr	Pro	Pro	Ser	Thr	Pro	Ser
	675					680						685			
Pro	Tyr	Gly	Leu	Ser	Tyr	Pro	Gln	Gly	Tyr	Ser	Leu	Ala	Ser	Gly	Gln

690	695	700
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Ser Thr Leu Ser Lys Ser Arg Pro Thr Pro Lys	Pro Arg Gln Arg Pro	
	725	730
Thr Leu Pro Pro Pro Gln Pro Pro Thr Val Asn	Leu Ser Ala Ser Ser	
	740	745
Pro Gln Ser Thr Glu Ala Pro Met Leu Asp Gly	Met Ser Pro Gly Glu	
	755	760
Ser Met Ser Thr Asp Leu Val His Phe Asp Ile	Pro Ser Ile His Ile	
	770	775
Glu Leu Gly Ser Thr Leu Arg Leu Ser Pro Leu	Glu His Met Arg Arg	
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Ala Leu		

<210> 247
 <211> 2850
 <212> DNA
 <213> Homo sapiens

<400> 247

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<210> 248
<211> 173
<212> PRT
<213> Homo sapiens

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35 40 45
Cys Glu Val Thr Tyr Asp Lys Thr Pro Leu Glu Lys Asp Gly Ile Thr
50 55 60
Val Val Asp Trp Pro Phe Asp Asp Gly Ala Pro Pro Pro Gly Lys Val
65 70 75 80
Val Glu Asp Trp Leu Ser Leu Val Lys Ala Lys Phe Cys Glu Ala Pro
85 90 95
Gly Ser Cys Val Ala Val His Cys Val Ala Gly Leu Gly Arg Ala Pro
100 105 110
Val Leu Val Ala Leu Ala Leu Ile Glu Ser Gly Met Lys Tyr Glu Asp
115 120 125
Ala Ile Gln Phe Ile Arg Gln Lys Arg Arg Gly Ala Ile Asn Ser Lys
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Gln Leu Thr Tyr Leu Glu Lys Tyr Arg Pro Lys Gln Arg Leu Arg Phe
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165 170

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<210> 249
<211> 3853
<212> DNA
<213> Homo sapiens

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[illegible]

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Thr	Met	Asn	Phe	Glu	Pro	Asn	Lys	Val	Asn	Ile	Gln	Lys	Lys	Asn	Cys
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Gly	Thr Ile Leu Asp Cys Asn Thr	Cys Lys Phe Ala Thr	Ile Thr Cys		
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Asn	Leu Thr Ser Ser Asp Ile Ser	Gln Val Asn Val	Ser Leu Ile Leu		
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Trp	Lys Pro Thr Phe Ile Lys Ser	Tyr Phe Ser	Ser Leu Asn Leu Thr		
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 1460 1465 1470
 Leu Leu Tyr Val Gln Gly Asn Glu Arg Ala His Gly Gln Asp Leu Gly
 1475 1480 1485
 Thr Ala Gly Ser Cys Leu Arg Lys Phe Ser Thr Met Pro Phe Leu Phe
 1490 1495 1500
 Cys Asn Ile Asn Asn Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser
 1505 1510 1515 1520
 Tyr Trp Leu Ser Thr Pro Glu Pro Met Pro Met Ser Met Ala Pro Ile
 1525 1530 1535
 Thr Gly Glu Asn Ile Arg Pro Phe Ile Ser Arg Cys Ala Val Cys Glu
 1540 1545 1550
 Ala Pro Ala Met Val Met Ala Val His Ser Gln Thr Ile Gln Ile Pro
 1555 1560 1565
 Pro Cys Pro Ser Gly Trp Ser Ser Leu Trp Ile Gly Tyr Ser Phe Val
 1570 1575 1580
 Met His Thr Ser Ala Gly Ala Glu Gly Ser Gly Gln Ala Leu Ala Ser
 1585 1590 1595 1600
 Pro Gly Ser Cys Leu Glu Glu Phe Arg Ser Ala Pro Phe Ile Glu Cys
 1605 1610 1615
 His Gly Arg Gly Thr Cys Asn Tyr Tyr Ala Asn Ala Tyr Ser Phe Trp
 1620 1625 1630
 Leu Ala Thr Ile Glu Arg Ser Glu Met Phe Lys Lys Pro Thr Pro Ser
 1635 1640 1645
 Thr Leu Lys Ala Gly Glu Leu Arg Thr His Val Ser Arg Cys Gln Val
 1650 1655 1660
 Cys Met Arg Arg Thr
 1665

<210> 253
 <211> 2798
 <212> DNA
 <213> Homo sapiens

<400> 253
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 cctgaggcag gtaaaagaat catcaggctc caggctcata cagcaacgac ttctacacca 180
 gcaacagccc cttcacccag aatgggctgc cctgggctaaa aagcagctga aaggcaaaaa 240
 cccagaagac ctaatatggc acaccccgga agggatctct ataaaaccct tgtattccaa 300
 gagagatact atggacttac ctgaagaact tccaggagtg aagccattca cacgtggacc 360
 atatcctacc atgtatacct ttaggccttg gaccatccgc cagtatgctg gtttttagtac 420
 tgtggaagaa agcaataagt tctataagga caacattaag gctggtcagc agggattatc 480
 agttgccttt gatctggcga cacatcgtgg ctatgattca gacaaccctc gagttcgtgg 540
 tgatgttgga atggctggag ttgctattga cactgtggaa gataccaaaa ttctttttga 600
 tggaattcct ttagaaaaaa tgtcagtttc catgactatg aatggagcag ttattccagt 660
 tcttgcaaat tttatagtaa ctggagaaga acaaggtgta cctaaagaga aacttactgg 720
 taccatccaa aatgatatac taaaggaatt tatggttcga aatacatata ttttctctoc 780
 agaaccatcc atgaaaatta ttgctgacat atttgaatat acagcaaagc acatgccaaa 840
 atttaattca atttcaatta gtggatacca tatgcaggaa gcaggggctg atgccattct 900
 ggagctggcc tatacttttag cagatggatt ggagtactct agaactggac tccaggctgg 960
 cctgacaatt gatgaatttg caccaaggtt gtctttcttc tggggaattg gaatgaattt 1020
 ctatatggaa atagcaaaga tgagagctgg tagaagactc tgggctcact taatagagaa 1080
 aatgtttcag cctaaaaact caaaatctct tcttctaaga gcacactgtc agacatctgg 1140
 atggtcactt actgagcagg atccctacaa taatattgtc cgtactgcaa tagaagcaat 1200
 ggcagcagta tttggaggga ctcagtcctt gcacacaaat tcttttgatg aagctttggg 1260
 tttgccaact gtgaaaagtg ctggaattgc caggaacaca caaatcatca ttcaagaaga 1320
 atctgggatt cccaaagtgg ctgatacctt gggagggttct tacatgatgg aatgtctcac 1380
 aaatgatgtt tatgatgctg ctttaaagct cattaatgaa attgaagaaa tgggtggaat 1440
 ggccaaagct gtagctgagg gaatacctaa acttcgaatt gaagaatgtg ctgcccgaa 1500
 acaagctaga atagattctg gttctgaagt aattgttgga gtaaataagt accagttgga 1560

aaaagaagac	gctgtagaag	ttctggcaat	tgataatact	tcagtgcgaa	acaggcagat	1620
tgaaaaactt	aagaagatca	aatccagcag	ggatcaagct	ttggctgaac	attgtcttgc	1680
tgcactaacc	gaatgtgctg	ctagcggaga	tggaaatatc	ctggctcttg	cagtggatgc	1740
atctcgggca	agatgtacag	tgggagaaat	cacagatgcc	ctgaaaaagg	tatttggtga	1800
acataaagcg	aatgatcgaa	tggtgagtgg	agcatatcgc	caggaatttg	gagaaagtaa	1860
agagataaca	tctgctatca	agagggttca	taaatatcatg	gaacgtgaag	gtcgcagacc	1920
tcgtcttctt	gtagcaaaaa	tgggacaaga	tggccatgac	agaggagcaa	aagtatttgc	1980
tacaggattt	gctgatcttg	gttttgatgt	ggacataggc	cctcttttcc	agactcctcg	2040
tgaagtggcc	cagcaggctg	tggatgcgga	tgtgcatgct	gtgggcgtaa	gcaccctcgc	2100
tgctgggtcat	aaaaccctag	ttcctgaact	catcaaagaa	cttaactccc	ttggacggcc	2160
agatattctt	gtcatgtgtg	gaggggtgat	accacctcag	gattatgaat	ttctgtttga	2220
agttgggtgt	tccaatgtat	ttgggtcctg	gactcgaatt	ccaaaggctg	ccgttcagggt	2280
gcttgatgat	attgagaagt	gtttggaaaa	gaagcagcaa	tctgtataat	atcctctttt	2340
tgttttagct	tttgtctaaa	atattatttt	agttatgata	aaagaagaga	gtaaagctat	2400
gtcttcaatt	taatttcaat	acctgatttg	tactttcctt	gaaagcttta	ctttaaaaata	2460
ccttacttat	aggcctgggtg	tcatgctata	agtatgtaca	tacagtttca	cttcaaaaat	2520
aaaaaaaaat	ccctaaaaaac	tctctatact	ctctataaca	atacttttatc	aagaactctg	2580
gacaatggta	ttattttttaa	aaatcatggg	gatgtattta	ttagaatggt	tcttataaat	2640
ctcttttcatt	tttatattaa	gaattaaact	gtacctaaaa	aaactctgac	tattcccat	2700
tctcagttta	gcattacatt	gtcttgagca	ccagaaaaata	aaatccatat	attaattaaa	2760
acctatcttg	aaaaaaaaaaa	aaaaaaaaaaa	aaaaaaaaa			2798

<210> 254
 <211> 750
 <212> PRT
 <213> Homo sapiens

<400> 254

Met	Leu	Arg	Ala	Lys	Asn	Gln	Leu	Phe	Leu	Leu	Ser	Pro	His	Tyr	Leu
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Arg	Gln	Val	Lys	Glu	Ser	Ser	Gly	Ser	Arg	Leu	Ile	Gln	Gln	Arg	Leu
			20					25					30		
Leu	His	Gln	Gln	Gln	Pro	Leu	His	Pro	Glu	Trp	Ala	Ala	Leu	Ala	Lys
		35				40					45				
Lys	Gln	Leu	Lys	Gly	Lys	Asn	Pro	Glu	Asp	Leu	Ile	Trp	His	Thr	Pro
	50					55				60					
Glu	Gly	Ile	Ser	Ile	Lys	Pro	Leu	Tyr	Ser	Lys	Arg	Asp	Thr	Met	Asp
	65				70					75				80	
Leu	Pro	Glu	Glu	Leu	Pro	Gly	Val	Lys	Pro	Phe	Thr	Arg	Gly	Pro	Tyr
				85				90						95	
Pro	Thr	Met	Tyr	Thr	Phe	Arg	Pro	Trp	Thr	Ile	Arg	Gln	Tyr	Ala	Gly
		100						105					110		
Phe	Ser	Thr	Val	Glu	Glu	Ser	Asn	Lys	Phe	Tyr	Lys	Asp	Asn	Ile	Lys
		115					120					125			
Ala	Gly	Gln	Gln	Gly	Leu	Ser	Val	Ala	Phe	Asp	Leu	Ala	Thr	His	Arg
	130					135					140				
Gly	Tyr	Asp	Ser	Asp	Asn	Pro	Arg	Val	Arg	Gly	Asp	Val	Gly	Met	Ala
	145				150					155				160	
Gly	Val	Ala	Ile	Asp	Thr	Val	Glu	Asp	Thr	Lys	Ile	Leu	Phe	Asp	Gly
			165						170					175	
Ile	Pro	Leu	Glu	Lys	Met	Ser	Val	Ser	Met	Thr	Met	Asn	Gly	Ala	Val
		180						185					190		
Ile	Pro	Val	Leu	Ala	Asn	Phe	Ile	Val	Thr	Gly	Glu	Glu	Gln	Gly	Val
	195						200						205		
Pro	Lys	Glu	Lys	Leu	Thr	Gly	Thr	Ile	Gln	Asn	Asp	Ile	Leu	Lys	Glu
	210					215					220				
Phe	Met	Val	Arg	Asn	Thr	Tyr	Ile	Phe	Pro	Pro	Glu	Pro	Ser	Met	Lys
	225				230					235				240	
Ile	Ile	Ala	Asp	Ile	Phe	Glu	Tyr	Thr	Ala	Lys	His	Met	Pro	Lys	Phe
			245					250						255	
Asn	Ser	Ile	Ser	Ile	Ser	Gly	Tyr	His	Met	Gln	Glu	Ala	Gly	Ala	Asp

<210> 255
 <211> 806
 <212> DNA
 <213> Homo sapiens

<400> 255
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 ttctacagag ataaaagaag taatagttct ggctgggtgt ggtggcttat gcctgtaatc 120
 ccaacacttt gggaggccaa ggcagggtga tcacatgagg tcaggagtgc gagaccagcc 180
 tggccaacat ggcaaaactg tctctactaa aaatataaaa attaggtagt gtggcacgtg 240
 cctgtactta cagctacttg ggaggctgag gcatgagatg acaatctctt gaacccagga 300
 ggcggaggtt gcagtgcagt gagattgcac cactgcactc cagcttgggt gatggagtga 360
 gactcaata aaaaaggtac tagttctgca ttccagagtt ggcttgttga accaggctat 420
 atgcttccaa gattttaaag tttttctgta ttatactctc aattgtgttt taaaaaatc 480
 tcttacagaa atctctacct caggcactaa gtgttatgac atgggtagca tattgatatt 540
 gaaaacttag ctaggacttc cagcctttta agataattta aatgtaaaat taaatgggta 600
 accagcaatc taatgtcatg tgggtgtgcag tttggatatt gcatgaacag ctaaggaatc 660
 acctgttcta gtgccaaaga tcaactattg ctaattttgt tctgtacagc ttatgtaata 720
 ttttcatggt ggagacggac tctgtgtgct cagggccttg tctctaggaa gattttgtca 780
 attccaaata cagttttgaa gattca 806

<210> 256
 <211> 9192
 <212> DNA
 <213> Homo sapiens

<400> 256
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 attgaggcag aagttgaccc accttcagac ttgaatttta aaattataga tgaaaatact 120
 gttcatatgt catgggcaga accagttgat ccaattgtgg gttacagaat aacggtggac 180
 cctacaacgg atgggectac taaagaatct accctttcag ctagtaccac tgaaacttta 240
 ttgtcagaac ttgtacctga aacagagtat gtggtgacaa taacttcata tgatgaagta 300
 gaagaaagtg taccagttat aggacaacta acaattcaaa caggtagttc gacaaagcca 360
 gtggagaaga aacctggaaa aaccgagata caaaaatgct ctgtcagtgc ctggactgat 420
 ttggttttcc tcgtggatgg ctcttgaggt gtgggaagaa ataatttcaa gtacatttta 480
 gacttcattg ctgctcttgt gtctgctttt gacattgggg aagagaagac aagagttgga 540
 gttgttcaat acagctctga caccaggact gaatttaact taaatcagta ctaccaagg 600
 gatgaacttc ttgctgcaat aaaaaaaatt ccatataaag gtggcaacac aatgacagg 660
 gatgccattg attatttagt taaaaatact ttcacggaat ctgctggggc aagagttggc 720
 tttcctaaag tggcaattat tattacggat ggaaaatccc aggatgaagt ggaaattcca 780
 gcaagagagc ttcgtaatgt tggagttgaa gttttctcct tgggcattaa agctgcagat 840
 gcaaaagaac tcaaacaaat tgccctccaca ccttcaactga accatgtttt caatgtggcc 900
 aactttgatg caattgtgga tattcagaat gagatcatct cccagggtgtg ctccaggagt 960
 gatgagcagc ttggtgaatt ggttagtgga gaagaagttg ttgagcctcc ttcaaatttg 1020
 attgccatgg aagtctcttc aaaatatggt aagctaaatt ggaatccatc tcctagtcca 1080
 gtgactgggt acaaagtcac cctcacacca atgactgcag gaagccgaca gcacgctctg 1140
 agtgtggggc ctcagacaac cacgctcagt gttcgcgacc tctcagcaga cacggagtac 1200
 cagatcagtg tttccgccat gaaggggaat acatccagtg aacccatttc aataatggag 1260
 aagactcagc caatgaaagt tcaagtggaa tgttcacgtg gtgtggatat aaaagccgat 1320
 attgtgtttt tgggtgatgg ctccatagc attgggattg caaactttgt taaagttaga 1380
 gccttttttg aagttcttgg aaaaagtgtt gaaatttcac caaatagggg ccagattagt 1440
 cttgtgcaat acagccggga tcttcatact gaggttcact tgaaaaaatt caccaaagt 1500
 gaagatataa ttgaagcaat aaacaccttc cttacagag gaggatctac aaatactggc 1560
 aaagcaatga cttatgtcag agagaaaata tttgtgccta gcaagggatc aagaagcaat 1620
 gtgccaaggc tcatgattct tatcacggat gggaaatcat cagatgcttt cagagatcct 1680
 gcgataaaaac tgaggaattc agatgttgaa atctttgcag ttggtgtgaa ggatgcccgt 1740
 cgctcagaat tgggaagctat tgccctctct cctgcagaga cccatgtgtt cacagtggaa 1800
 gattttgatg cttttcagag gatattcttt gaactcacac agtctatctg tcttagaatt 1860
 gagcaagaat tggcagctat aaagaagaaa gcttacgtcc ctccaaagga tcttagtttt 1920
 tcagaagtga cttcttatgg tttcaaaacc aactggtctc cagctggaga aaatgttttt 1980

<210> 257
 <211> 3063
 <212> PRT
 <213> Homo sapiens

<400> 257

Met	Arg	Ser	Arg	Leu	Pro	Pro	Ala	Leu	Ala	Ala	Leu	Gly	Ala	Ala	Leu
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Leu	Leu	Ser	Ser	Ile	Glu	Ala	Glu	Val	Asp	Pro	Pro	Ser	Asp	Leu	Asn
			20					25					30		
Phe	Lys	Ile	Ile	Asp	Glu	Asn	Thr	Val	His	Met	Ser	Trp	Ala	Glu	Pro
		35					40					45			
Val	Asp	Pro	Ile	Val	Gly	Tyr	Arg	Ile	Thr	Val	Asp	Pro	Thr	Thr	Asp
	50					55					60				
Gly	Pro	Thr	Lys	Glu	Phe	Thr	Leu	Ser	Ala	Ser	Thr	Thr	Glu	Thr	Leu
65					70					75					80
Leu	Ser	Glu	Leu	Val	Pro	Glu	Thr	Glu	Tyr	Val	Val	Thr	Ile	Thr	Ser
				85					90					95	
Tyr	Asp	Glu	Val	Glu	Glu	Ser	Val	Pro	Val	Ile	Gly	Gln	Leu	Thr	Ile
			100					105					110		
Gln	Thr	Gly	Ser	Ser	Thr	Lys	Pro	Val	Glu	Lys	Lys	Pro	Gly	Lys	Thr
		115					120						125		
Glu	Ile	Gln	Lys	Cys	Ser	Val	Ser	Ala	Trp	Thr	Asp	Leu	Val	Phe	Leu
	130					135					140				
Val	Asp	Gly	Ser	Trp	Ser	Val	Gly	Arg	Asn	Asn	Phe	Lys	Tyr	Ile	Leu
145					150					155					160
Asp	Phe	Ile	Ala	Ala	Leu	Val	Ser	Ala	Phe	Asp	Ile	Gly	Glu	Glu	Lys
			165						170					175	
Thr	Arg	Val	Gly	Val	Val	Gln	Tyr	Ser	Ser	Asp	Thr	Arg	Thr	Glu	Phe
			180					185					190		
Asn	Leu	Asn	Gln	Tyr	Tyr	Gln	Arg	Asp	Glu	Leu	Leu	Ala	Ala	Ile	Lys
		195					200						205		
Lys	Ile	Pro	Tyr	Lys	Gly	Gly	Asn	Thr	Met	Thr	Gly	Asp	Ala	Ile	Asp
	210					215					220				
Tyr	Leu	Val	Lys	Asn	Thr	Phe	Thr	Glu	Ser	Ala	Gly	Ala	Arg	Val	Gly
225					230					235				240	
Phe	Pro	Lys	Val	Ala	Ile	Ile	Ile	Thr	Asp	Gly	Lys	Ser	Gln	Asp	Glu
			245						250					255	
Val	Glu	Ile	Pro	Ala	Arg	Glu	Leu	Arg	Asn	Val	Gly	Val	Glu	Val	Phe
			260					265					270		
Ser	Leu	Gly	Ile	Lys	Ala	Ala	Asp	Ala	Lys	Glu	Leu	Lys	Gln	Ile	Ala
	275						280					285			
Ser	Thr	Pro	Ser	Leu	Asn	His	Val	Phe	Asn	Val	Ala	Asn	Phe	Asp	Ala
	290					295					300				
Ile	Val	Asp	Ile	Gln	Asn	Glu	Ile	Ile	Ser	Gln	Val	Cys	Ser	Gly	Val
305					310					315				320	
Asp	Glu	Gln	Leu	Gly	Glu	Leu	Val	Ser	Gly	Glu	Glu	Val	Val	Glu	Pro
			325						330					335	
Pro	Ser	Asn	Leu	Ile	Ala	Met	Glu	Val	Ser	Ser	Lys	Tyr	Val	Lys	Leu
		340						345					350		
Asn	Trp	Asn	Pro	Ser	Pro	Ser	Pro	Val	Thr	Gly	Tyr	Lys	Val	Ile	Leu
	355						360					365			
Thr	Pro	Met	Thr	Ala	Gly	Ser	Arg	Gln	His	Ala	Leu	Ser	Val	Gly	Pro
	370					375					380				
Gln	Thr	Thr	Thr	Leu	Ser	Val	Arg	Asp	Leu	Ser	Ala	Asp	Thr	Glu	Tyr
385					390					395				400	
Gln	Ile	Ser	Val	Ser	Ala	Met	Lys	Gly	Met	Thr	Ser	Ser	Glu	Pro	Ile
			405						410					415	
Ser	Ile	Met	Glu	Lys	Thr	Gln	Pro	Met	Lys	Val	Gln	Val	Glu	Cys	Ser

1395 1400 1405
 Ser Asp Ser Val Asp Arg Tyr Lys Val Glu Tyr Tyr Pro Val Ser Gly
 1410 1415 1420
 Gly Lys Arg Gln Glu Phe Tyr Val Ser Arg Met Glu Thr Ser Thr Val
 1425 1430 1435 1440
 Leu Lys Asp Leu Lys Pro Glu Thr Glu Tyr Val Val Asn Val Tyr Ser
 1445 1450 1455
 Val Val Glu Asp Glu Tyr Ser Glu Pro Leu Lys Gly Thr Glu Lys Thr
 1460 1465 1470
 Leu Pro Val Pro Val Val Ser Leu Asn Ile Tyr Asp Val Gly Pro Thr
 1475 1480 1485
 Thr Met His Val Gln Trp Gln Pro Val Gly Gly Ala Thr Gly Tyr Ile
 1490 1495 1500
 Leu Ser Tyr Lys Pro Val Lys Asp Thr Glu Pro Thr Arg Pro Lys Glu
 1505 1510 1515 1520
 Val Arg Leu Gly Pro Thr Val Asn Asp Met Gln Leu Thr Asp Leu Val
 1525 1530 1535
 Pro Asn Thr Glu Tyr Ala Val Thr Val Gln Ala Val Leu His Asp Leu
 1540 1545 1550
 Thr Ser Glu Pro Val Thr Val Arg Glu Val Thr Leu Pro Leu Pro Arg
 1555 1560 1565
 Pro Gln Asp Leu Lys Leu Arg Asp Val Thr His Ser Thr Met Asn Val
 1570 1575 1580
 Phe Trp Glu Pro Val Pro Gly Lys Val Arg Lys Tyr Ile Val Arg Tyr
 1585 1590 1595 1600
 Lys Thr Pro Glu Glu Asp Val Lys Glu Val Glu Val Asp Arg Ser Glu
 1605 1610 1615
 Thr Ser Thr Ser Leu Lys Asp Leu Phe Ser Gln Thr Leu Tyr Thr Val
 1620 1625 1630
 Ser Val Ser Ala Val His Asp Glu Gly Glu Ser Pro Pro Val Thr Ala
 1635 1640 1645
 Gln Glu Thr Thr Arg Pro Val Pro Ala Pro Thr Asn Leu Lys Ile Thr
 1650 1655 1660
 Glu Val Thr Ser Glu Gly Phe Arg Gly Thr Trp Asp His Gly Ala Ser
 1665 1670 1675 1680
 Asp Val Ser Leu Tyr Arg Ile Thr Trp Gly Pro Phe Gly Ser Ser Asp
 1685 1690 1695
 Lys Met Glu Thr Ile Leu Asn Gly Asp Glu Asn Thr Leu Val Phe Glu
 1700 1705 1710
 Asn Leu Asn Pro Asn Thr Ile Tyr Glu Val Ser Ile Thr Ala Ile Tyr
 1715 1720 1725
 Ala Asp Glu Ser Glu Ser Asp Asp Leu Ile Gly Ser Glu Arg Thr Leu
 1730 1735 1740
 Pro Ile Leu Thr Thr Gln Ala Pro Lys Ser Gly Pro Arg Asn Leu Gln
 1745 1750 1755 1760
 Val Tyr Asn Ala Thr Ser Asn Ser Leu Thr Val Lys Trp Asp Pro Ala
 1765 1770 1775
 Ser Gly Arg Val Gln Lys Tyr Arg Ile Thr Tyr Gln Pro Ser Thr Gly
 1780 1785 1790
 Glu Gly Asn Glu Gln Thr Thr Thr Ile Gly Gly Arg Gln Asn Ser Val
 1795 1800 1805
 Val Leu Gln Lys Leu Lys Pro Asp Thr Pro Tyr Thr Ile Thr Val Ser
 1810 1815 1820
 Ser Leu Tyr Pro Asp Gly Glu Gly Gly Arg Met Thr Gly Arg Gly Lys
 1825 1830 1835 1840
 Thr Lys Pro Leu Asn Thr Val Arg Asn Leu Arg Val Tyr Asp Pro Ser
 1845 1850 1855
 Thr Ser Thr Leu Asn Val Arg Trp Asp His Ala Glu Gly Asn Pro Arg
 1860 1865 1870
 Gln Tyr Lys Leu Phe Tyr Ala Pro Ala Ala Gly Gly Pro Glu Glu Leu
 1875 1880 1885

Val Pro Ile Pro Gly Asn Thr Asn Tyr Ala Ile Leu Arg Asn Leu Gln
 1890 1895 1900
 Pro Asp Thr Ser Tyr Thr Val Thr Val Val Pro Val Tyr Thr Glu Gly
 1905 1910 1915 1920
 Asp Gly Gly Arg Thr Ser Asp Thr Gly Arg Thr Leu Met Arg Gly Leu
 1925 1930 1935
 Ala Arg Asn Val Gln Val Tyr Asn Pro Thr Pro Asn Arg Leu Gly Val
 1940 1945 1950
 Arg Trp Asp Pro Ala Pro Gly Pro Val Leu Gln Tyr Arg Val Val Tyr
 1955 1960 1965
 Ser Pro Val Asp Gly Thr Arg Pro Ser Glu Ser Ile Val Val Pro Gly
 1970 1975 1980
 Asn Thr Arg Met Val His Leu Glu Arg Leu Ile Pro Asp Thr Leu Tyr
 1985 1990 1995 2000
 Ser Val Asn Leu Val Ala Leu Tyr Ser Asp Gly Glu Gly Asn Pro Ser
 2005 2010 2015
 Pro Ala Gln Gly Arg Thr Leu Pro Arg Ser Gly Pro Arg Asn Leu Arg
 2020 2025 2030
 Val Phe Gly Glu Thr Thr Asn Ser Leu Ser Val Ala Trp Asp His Ala
 2035 2040 2045
 Asp Gly Pro Val Gln Gln Tyr Arg Ile Ile Tyr Ser Pro Thr Val Gly
 2050 2055 2060
 Asp Pro Ile Asp Glu Tyr Thr Val Pro Gly Arg Arg Asn Asn Val
 2065 2070 2075 2080
 Ile Leu Gln Pro Leu Gln Pro Asp Thr Pro Tyr Lys Ile Thr Val Ile
 2085 2090 2095
 Ala Val Tyr Glu Asp Gly Asp Gly His Leu Thr Gly Asn Gly Arg
 2100 2105 2110
 Thr Val Gly Leu Leu Pro Pro Gln Asn Ile His Ile Ser Asp Glu Trp
 2115 2120 2125
 Tyr Thr Arg Phe Arg Val Ser Trp Asp Pro Ser Pro Ser Pro Val Leu
 2130 2135 2140
 Gly Tyr Lys Ile Val Tyr Lys Pro Val Gly Ser Asn Glu Pro Met Glu
 2145 2150 2155 2160
 Ala Phe Val Gly Glu Met Thr Ser Tyr Thr Leu His Asn Leu Asn Pro
 2165 2170 2175
 Ser Thr Thr Tyr Asp Val Asn Val Tyr Ala Gln Tyr Asp Ser Gly Leu
 2180 2185 2190
 Ser Val Pro Leu Thr Asp Gln Gly Thr Thr Leu Tyr Leu Asn Val Thr
 2195 2200 2205
 Asp Leu Lys Thr Tyr Gln Ile Gly Trp Asp Thr Phe Cys Val Lys Trp
 2210 2215 2220
 Ser Pro His Arg Ala Ala Thr Ser Tyr Arg Leu Lys Leu Ser Pro Ala
 2225 2230 2235 2240
 Asp Gly Thr Arg Gly Gln Glu Ile Thr Val Arg Gly Ser Glu Thr Ser
 2245 2250 2255
 His Cys Phe Thr Gly Leu Ser Pro Asp Thr Asp Tyr Gly Val Thr Val
 2260 2265 2270
 Phe Val Gln Thr Pro Asn Leu Glu Gly Pro Gly Val Ser Val Lys Glu
 2275 2280 2285
 His Thr Thr Val Lys Pro Thr Glu Ala Pro Thr Glu Pro Pro Thr Pro
 2290 2295 2300
 Pro Pro Pro Pro Thr Ile Pro Pro Ala Arg Asp Val Cys Lys Gly Ala
 2305 2310 2315 2320
 Lys Ala Asp Ile Val Phe Leu Thr Asp Ala Ser Trp Ser Ile Gly Asp
 2325 2330 2335
 Asp Asn Phe Asn Lys Val Val Lys Phe Ile Phe Asn Thr Val Gly Gly
 2340 2345 2350
 Phe Asp Glu Ile Ser Pro Ala Gly Ile Gln Val Ser Phe Val Gln Tyr
 2355 2360 2365
 Ser Asp Glu Val Lys Ser Glu Phe Lys Leu Asn Thr Tyr Asn Asp Lys

2370	2375	2380
Ala Leu Ala Leu Gly	Ala Leu Gln Asn Ile	Arg Tyr Arg Gly Gly Asn
2385	2390	2395
Thr Arg Thr Gly Lys	Ala Leu Thr Phe	Ile Lys Glu Lys Val Leu Thr
2405	2410	2415
Trp Glu Ser Gly Met	Arg Lys Asn Val Pro	Lys Val Leu Val Val
2420	2425	2430
Thr Asp Gly Arg Ser	Gln Asp Glu Val Lys	Lys Ala Ala Leu Val Ile
2435	2440	2445
Gln Gln Ser Gly Phe	Ser Val Phe Val Val	Gly Val Ala Asp Val Asp
2450	2455	2460
Tyr Asn Glu Leu Ala	Asn Ile Ala Ser Lys	Pro Ser Glu Arg His Val
2465	2470	2475
Phe Ile Val Asp Asp	Phe Glu Ser Phe	Glu Lys Ile Glu Asp Asn Leu
2485	2490	2495
Ile Thr Phe Val Cys	Glu Thr Ala Thr	Ser Ser Cys Pro Leu Ile Tyr
2500	2505	2510
Leu Asp Gly Tyr Thr	Ser Pro Gly Phe	Lys Met Leu Glu Ala Tyr Asn
2515	2520	2525
Leu Thr Glu Lys Asn	Phe Ala Ser Val	Gln Gly Val Ser Leu Glu Ser
2530	2535	2540
Gly Ser Phe Pro Ser	Tyr Ser Ala Tyr	Arg Ile Gln Lys Asn Ala Phe
2545	2550	2555
Val Asn Gln Pro Thr	Ala Asp Leu His	Pro Asn Gly Leu Pro Pro Ser
2565	2570	2575
Tyr Thr Ile Ile Leu	Leu Phe Arg Leu	Leu Pro Glu Thr Pro Ser Asp
2580	2585	2590
Pro Phe Ala Ile Trp	Gln Ile Thr Asp	Arg Asp Tyr Lys Pro Gln Val
2595	2600	2605
Gly Val Ile Ala Asp	Pro Ser Ser Lys	Thr Leu Ser Phe Phe Asn Lys
2610	2615	2620
Asp Thr Arg Gly Glu	Val Gln Thr Val	Thr Phe Asp Thr Glu Glu Val
2625	2630	2635
Lys Thr Leu Phe Tyr	Gly Ser Phe His	Lys Val His Ile Val Val Thr
2645	2650	2655
Ser Lys Ser Val Lys	Ile Tyr Ile Asp	Cys Tyr Glu Ile Ile Glu Lys
2660	2665	2670
Asp Ile Lys Glu Ala	Gly Asn Ile Thr	Thr Asp Gly Tyr Glu Ile Leu
2675	2680	2685
Gly Lys Leu Leu Lys	Gly Glu Arg Lys	Ser Ala Ala Phe Gln Ile Gln
2690	2695	2700
Ser Phe Asp Ile Val	Cys Ser Pro Val	Trp Thr Ser Arg Asp Arg Cys
2705	2710	2715
Cys Asp Ile Pro Ser	Arg Arg Asp Glu	Gly Lys Cys Pro Ala Phe Pro
2725	2730	2735
Asn Ser Cys Thr Cys	Thr Gln Asp Ser	Val Gly Pro Pro Gly Pro Pro
2740	2745	2750
Gly Pro Ala Gly Gly	Pro Gly Ala Lys	Gly Pro Arg Gly Glu Arg Gly
2755	2760	2765
Ile Ser Gly Ala Ile	Gly Pro Pro Gly	Pro Arg Gly Asp Ile Gly Pro
2770	2775	2780
Pro Gly Pro Gln Gly	Pro Pro Gly Pro	Gln Gly Pro Asn Gly Leu Ser
2785	2790	2795
Ile Pro Gly Glu Gln	Gly Arg Gln Gly	Met Lys Gly Asp Ala Gly Glu
2805	2810	2815
Pro Gly Leu Pro Gly	Arg Thr Gly Thr	Pro Gly Leu Pro Gly Pro Pro
2820	2825	2830
Gly Pro Met Gly Pro	Pro Gly Asp Arg	Gly Phe Thr Gly Lys Asp Ser
2835	2840	2845
Ala Met Gly Pro Arg	Gly Pro Pro Gly	Arg Pro Gly Ser Pro Gly Ser
2850	2855	2860

Pro Gly Val Thr Gly Pro Ser Gly Lys Pro Gly Lys Pro Gly Asp His
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 Gly Arg Pro Gly Pro Ser Gly Leu Lys Gly Glu Lys Gly Asp Arg Gly
 2885 2890 2895
 Asp Ile Ala Ser Gln Asn Met Met Arg Ala Val Ala Arg Gln Val Cys
 2900 2905 2910
 Glu Gln Leu Ile Ser Gly Gln Met Asn Arg Phe Asn Gln Met Leu Asn
 2915 2920 2925
 Gln Ile Pro Asn Asp Tyr Gln Ser Ser Arg Asn Gln Pro Gly Pro Pro
 2930 2935 2940
 Gly Pro Pro Gly Pro Pro Gly Ser Ala Gly Ala Arg Gly Glu Pro Gly
 2945 2950 2955 2960
 Pro Gly Gly Arg Pro Gly Phe Pro Gly Thr Pro Gly Met Gln Gly Pro
 2965 2970 2975
 Pro Gly Glu Arg Gly Leu Pro Gly Glu Lys Gly Glu Arg Gly Thr Gly
 2980 2985 2990
 Ser Ser Gly Pro Arg Gly Leu Pro Gly Pro Gly Pro Gln Gly Glu
 2995 3000 3005
 Ser Arg Thr Gly Pro Pro Gly Ser Thr Gly Ser Arg Gly Pro Pro Gly
 3010 3015 3020
 Pro Pro Gly Arg Pro Gly Asn Ser Gly Ile Gln Gly Pro Pro Gly Pro
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 3045 3050 3055
 Gln Ser Tyr Pro Gly Ser Gly
 3060

<210> 258
 <211> 1717
 <212> DNA
 <213> Homo sapiens

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 attgggtgga ccagtgggcca gtactatgat tatgattttc ccctatcaat ttatgggcaa 180
 tcatcaccaa actgtgcacc agaatgtaac tgccctgaaa gctacccaag tgccatgtac 240
 tgtgatgagc tgaaattgaa aagtgtacca atgggtgcctc ctggaatcaa gtatctttac 300
 cttaggaata accagattga ccatattgat gaaaaggcct ttgagaatgt aactgatctg 360
 cagtggtcca ttctagatca caaccttcta gaaaactcca agataaaaagg gagagttttc 420
 tctaaattga aacaactgaa gaagctgcat ataaaccaca acaacctgac agagtctgtg 480
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 ggctcttttg aaggattggg aaacctgacc ttcatccatc tccagcacia tcgggtgaaa 600
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 ttcaatcaga tagccagact gccttctggg ctccctgtct ctcttctaac tctctactta 720
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1717

<210> 259
<211> 338
<212> PRT
<213> Homo sapiens

<400> 259
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35 40 45
Ser Ala Met Tyr Cys Asp Glu Leu Lys Leu Lys Ser Val Pro Met Val
50 55 60
Pro Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His
65 70 75 80
Ile Asp Glu Lys Ala Phe Glu Asn Val Thr Asp Leu Gln Trp Leu Ile
85 90 95
Leu Asp His Asn Leu Leu Glu Asn Ser Lys Ile Lys Gly Arg Val Phe
100 105 110
Ser Lys Leu Lys Gln Leu Lys Lys Leu His Ile Asn His Asn Asn Leu
115 120 125
Thr Glu Ser Val Gly Pro Leu Pro Lys Ser Leu Glu Asp Leu Gln Leu
130 135 140
Thr His Asn Lys Ile Thr Lys Leu Gly Ser Phe Glu Gly Leu Val Asn
145 150 155 160
Leu Thr Phe Ile His Leu Gln His Asn Arg Leu Lys Glu Asp Ala Val
165 170 175
Ser Ala Ala Phe Lys Gly Leu Lys Ser Leu Glu Tyr Leu Asp Leu Ser
180 185 190
Phe Asn Gln Ile Ala Arg Leu Pro Ser Gly Leu Pro Val Ser Leu Leu
195 200 205
Thr Leu Tyr Leu Asp Asn Asn Lys Ile Ser Asn Ile Pro Asp Glu Tyr
210 215 220
Phe Lys Arg Phe Asn Ala Leu Gln Tyr Leu Arg Leu Ser His Asn Glu
225 230 235 240
Leu Ala Asp Ser Gly Ile Pro Gly Asn Ser Phe Asn Val Ser Ser Leu
245 250 255
Val Glu Leu Asp Leu Ser Tyr Asn Lys Leu Lys Asn Ile Pro Thr Val
260 265 270
Asn Glu Asn Leu Glu Asn Tyr Tyr Leu Glu Val Asn Gln Leu Glu Lys
275 280 285
Phe Asp Ile Lys Ser Phe Cys Lys Ile Leu Gly Pro Leu Ser Tyr Ser
290 295 300
Lys Ile Lys His Leu Arg Leu Asp Gly Asn Arg Ile Ser Glu Thr Ser
305 310 315 320
Leu Pro Pro Asp Met Tyr Glu Cys Leu Arg Val Ala Asn Glu Val Thr
325 330 335
Leu Asn

<210> 260
<211> 6728
<212> DNA
<213> Homo sapiens

<400> 260
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Glu	Asp	Ile	Pro	Pro	Ile	Thr	Cys	Val	Gln	Asn	Gly	Leu	Arg	Tyr	His
	35						40				45				
Asp	Arg	Asp	Val	Trp	Lys	Pro	Glu	Pro	Cys	Arg	Ile	Cys	Val	Cys	Asp
	50					55				60					
Asn	Gly	Lys	Val	Leu	Cys	Asp	Asp	Val	Ile	Cys	Asp	Glu	Thr	Lys	Asn
65					70				75						80
Cys	Pro	Gly	Ala	Glu	Val	Pro	Glu	Gly	Glu	Cys	Cys	Pro	Val	Cys	Pro
			85					90					95		
Asp	Gly	Ser	Glu	Ser	Pro	Thr	Asp	Gln	Glu	Thr	Thr	Gly	Val	Glu	Gly
			100					105					110		
Pro	Lys	Gly	Asp	Thr	Gly	Pro	Arg	Gly	Pro	Arg	Gly	Pro	Ala	Gly	Pro
	115					120					125				
Pro	Gly	Arg	Asp	Gly	Ile	Pro	Gly	Gln	Pro	Gly	Leu	Pro	Gly	Pro	Pro
	130					135					140				
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gly	Gly	Asn	Phe	Ala
145					150					155					160
Pro	Gln	Leu	Ser	Tyr	Gly	Tyr	Asp	Glu	Lys	Ser	Thr	Gly	Gly	Ile	Ser
			165					170						175	
Val	Pro	Gly	Pro	Met	Gly	Pro	Ser	Gly	Pro	Arg	Gly	Leu	Pro	Gly	Pro
			180					185					190		
Pro	Gly	Ala	Pro	Gly	Pro	Gln	Gly	Phe	Gln	Gly	Pro	Pro	Gly	Glu	Pro
	195					200					205				
Gly	Glu	Pro	Gly	Ala	Ser	Gly	Pro	Met	Gly	Pro	Arg	Gly	Pro	Pro	Gly
	210					215					220				
Pro	Pro	Gly	Lys	Asn	Gly	Asp	Asp	Gly	Glu	Ala	Gly	Lys	Pro	Gly	Arg
225					230					235					240
Pro	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Ala	Arg	Gly	Leu	Pro
			245						250					255	
Gly	Thr	Ala	Gly	Leu	Pro	Gly	Met	Lys	Gly	His	Arg	Gly	Phe	Ser	Gly
		260						265					270		
Leu	Asp	Gly	Ala	Lys	Gly	Asp	Ala	Gly	Pro	Ala	Gly	Pro	Lys	Gly	Glu
	275					280					285				
Pro	Gly	Ser	Pro	Gly	Glu	Asn	Gly	Ala	Pro	Gly	Gln	Met	Gly	Pro	Arg
	290					295					300				
Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg	Pro	Gly	Ala	Pro	Gly	Pro	Ala	Gly
305					310					315					320
Ala	Arg	Gly	Asn	Asp	Gly	Ala	Thr	Gly	Ala	Ala	Gly	Pro	Pro	Gly	Pro
			325					330						335	
Thr	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Phe	Pro	Gly	Ala	Val	Gly	Ala	Lys
		340						345					350		
Gly	Glu	Ala	Gly	Pro	Gln	Gly	Pro	Arg	Gly	Ser	Glu	Gly	Pro	Gln	Gly
	355					360					365				
Val	Arg	Gly	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Ala	Ala	Gly	Pro
	370					375					380				
Ala	Gly	Asn	Pro	Gly	Ala	Asp	Gly	Gln	Pro	Gly	Ala	Lys	Gly	Ala	Asn
385					390					395					400
Gly	Ala	Pro	Gly	Ile	Ala	Gly	Ala	Pro	Gly	Phe	Pro	Gly	Ala	Arg	Gly
			405					410						415	
Pro	Ser	Gly	Pro	Gln	Gly	Pro	Gly	Gly	Pro	Pro	Gly	Pro	Lys	Gly	Asn
		420						425					430		
Ser	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Ser	Lys	Gly	Asp	Thr	Gly	Ala	Lys
	435						440				445				
Gly	Glu	Pro	Gly	Pro	Val	Gly	Val	Gln	Gly	Pro	Pro	Gly	Pro	Ala	Gly
	450					455					460				
Glu	Glu	Gly	Lys	Arg	Gly	Ala	Arg	Gly	Glu	Pro	Gly	Pro	Thr	Gly	Leu
465					470					475					480
Pro	Gly	Pro	Pro	Gly	Glu	Arg	Gly	Gly	Pro	Gly	Ser	Arg	Gly	Phe	Pro
			485					490						495	
Gly	Ala	Asp	Gly	Val	Ala	Gly	Pro	Lys	Gly	Pro	Ala	Gly	Glu	Arg	Gly

Glu Arg Gly Pro Pro Gly Pro Met Gly Pro Pro Gly Leu Ala Gly Pro
 995 1000 1005
 Pro Gly Glu Ser Gly Arg Glu Gly Ala Pro Ala Ala Glu Gly Ser Pro
 1010 1015 1020
 Gly Arg Asp Gly Ser Pro Gly Ala Lys Gly Asp Arg Gly Glu Thr Gly
 1025 1030 1035 1040
 Pro Ala Gly Pro Pro Gly Ala Pro Gly Ala Pro Gly Ala Pro Gly Pro
 1045 1050 1055
 Val Gly Pro Ala Gly Lys Ser Gly Asp Arg Gly Glu Thr Gly Pro Ala
 1060 1065 1070
 Gly Pro Ala Gly Pro Val Gly Pro Val Gly Ala Arg Gly Pro Ala Gly
 1075 1080 1085
 Pro Gln Gly Pro Arg Gly Asp Lys Gly Glu Thr Gly Glu Gln Gly Asp
 1090 1095 1100
 Arg Gly Ile Lys Gly His Arg Gly Phe Ser Gly Leu Gln Gly Pro Pro
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 Gly Pro Pro Gly Ser Pro Gly Glu Gln Gly Pro Ser Gly Ala Ser Gly
 1125 1130 1135
 Pro Ala Gly Pro Arg Gly Pro Pro Gly Ser Ala Gly Ala Pro Gly Lys
 1140 1145 1150
 Asp Gly Leu Asn Gly Leu Pro Gly Pro Ile Gly Pro Pro Gly Pro Arg
 1155 1160 1165
 Gly Arg Thr Gly Asp Ala Gly Pro Val Gly Pro Pro Gly Pro Pro Gly
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 Pro Pro Gly Pro Pro Gly Pro Pro Ser Ala Gly Phe Asp Phe Ser Phe
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 Leu Pro Gln Pro Pro Gln Glu Lys Ala His Asp Gly Gly Arg Tyr Tyr
 1205 1210 1215
 Arg Ala Asp Asp Ala Asn Val Val Arg Asp Arg Asp Leu Glu Val Asp
 1220 1225 1230
 Thr Thr Leu Lys Ser Leu Ser Gln Gln Ile Glu Asn Ile Arg Ser Pro
 1235 1240 1245
 Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu Lys Met
 1250 1255 1260
 Cys His Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro Asn Gln
 1265 1270 1275 1280
 Gly Cys Asn Leu Asp Ala Ile Lys Val Phe Cys Asn Met Glu Thr Gly
 1285 1290 1295
 Glu Thr Cys Val Tyr Pro Thr Gln Pro Ser Val Ala Gln Lys Asn Trp
 1300 1305 1310
 Tyr Ile Ser Lys Asn Pro Lys Asp Lys Arg His Val Trp Phe Gly Glu
 1315 1320 1325
 Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Gln Gly Ser Asp
 1330 1335 1340
 Pro Ala Asp Val Ala Ile Gln Leu Thr Phe Leu Arg Leu Met Ser Thr
 1345 1350 1355 1360
 Glu Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Val Ala Tyr
 1365 1370 1375
 Met Asp Gln Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Leu Lys Gly
 1380 1385 1390
 Ser Asn Glu Ile Glu Ile Arg Ala Glu Gly Asn Ser Arg Phe Thr Tyr
 1395 1400 1405
 Ser Val Thr Val Asp Gly Cys Thr Ser His Thr Gly Ala Trp Gly Lys
 1410 1415 1420
 Thr Val Ile Glu Tyr Lys Thr Thr Lys Ser Ser Arg Leu Pro Ile Ile
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 Asp Val Gly Pro Val Cys Phe Leu
 1460

<210> 262
 <211> 2574
 <212> DNA
 <213> Homo sapiens

<400> 262

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 <212> PRT
 <213> Homo sapiens

<400> 263

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Gly	His	Ile	Lys	Lys	Lys	Arg	Val	Glu	Ala	Ile	Arg	Gly	Gln	Ile	Leu

252

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<210> 265
 <211> 1366
 <212> PRT
 <213> Homo sapiens

<400> 265

Met	Leu	Ser	Phe	Val	Asp	Thr	Arg	Thr	Leu	Leu	Leu	Leu	Ala	Val	Thr
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Leu	Cys	Leu	Ala	Thr	Cys	Gln	Ser	Leu	Gln	Glu	Glu	Thr	Val	Arg	Lys
			20					25				30			
Gly	Pro	Ala	Gly	Asp	Arg	Gly	Pro	Arg	Gly	Glu	Arg	Gly	Pro	Pro	Gly
		35				40					45				
Pro	Pro	Gly	Arg	Asp	Gly	Glu	Asp	Gly	Pro	Thr	Gly	Pro	Pro	Gly	Pro
		50				55					60				
Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gly	Gly	Asn	Phe	Ala	Ala	Gln
				70				75						80	
Tyr	Asp	Gly	Lys	Gly	Val	Gly	Leu	Gly	Pro	Gly	Pro	Met	Gly	Leu	Met
			85					90						95	
Gly	Pro	Arg	Gly	Pro	Pro	Gly	Ala	Ala	Gly	Ala	Pro	Gly	Pro	Gln	Gly
			100					105					110		
Phe	Gln	Gly	Pro	Ala	Gly	Glu	Pro	Gly	Glu	Pro	Gly	Gln	Thr	Gly	Pro
			115				120					125			
Ala	Gly	Ala	Arg	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Lys	Ala	Gly	Glu	Asp
			130			135					140				
Gly	His	Pro	Gly	Lys	Pro	Gly	Arg	Pro	Gly	Glu	Arg	Gly	Val	Val	Gly
				150						155				160	
Pro	Gln	Gly	Ala	Arg	Gly	Phe	Pro	Gly	Thr	Pro	Gly	Leu	Pro	Gly	Phe
			165					170						175	
Lys	Gly	Ile	Arg	Gly	His	Asn	Gly	Leu	Asp	Gly	Leu	Lys	Gly	Gln	Pro
			180					185					190		
Gly	Ala	Pro	Gly	Val	Lys	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Glu	Asn	Gly
			195				200					205			
Thr	Pro	Gly	Gln	Thr	Gly	Ala	Arg	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg
			210			215					220				
Val	Gly	Ala	Pro	Gly	Pro	Ala	Gly	Ala	Arg	Gly	Ser	Asp	Gly	Ser	Val
			225			230				235				240	

Tyr Arg Ser Ser Lys Asp Lys Lys His Val Trp Leu Gly Glu Thr Ile
 1220 1225 1230
 Asn Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu Gly Val Thr Ser Lys
 1235 1240 1245
 Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu Leu Ala Asn Tyr Ala
 1250 1255 1260
 Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp
 1265 1270 1275 1280
 Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile Leu Gln Gly Ser Asn
 1285 1290 1295
 Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Val
 1300 1305 1310
 Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu Trp Gly Lys Thr Ile
 1315 1320 1325
 Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu Pro Phe Leu Asp Ile
 1330 1335 1340
 Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu Phe Phe Val Asp Ile
 1345 1350 1355 1360
 Gly Pro Val Cys Phe Lys
 1365

<210> 266
 <211> 2028
 <212> DNA
 <213> Homo sapiens

<400> 266
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 gcagcaactc actggagccc ctcttgcccc ccgcaacagg tgtttgggga cctggaccag 180
 gtgaggatga cctcggaggg ctccgactgc cgttgcaagt gcatcatgcg gccctgagc 240
 aaggacgctg gtagccgagt gcgcagtggg cgggcacgcg tggaggactt ctacacgggtg 300
 gagactgtga gctcgggcac tgactgccgc tgctcctgta ccgcacctcc ctctctctc 360
 aacccctgtg agaacgagt gaagatggag aaactcaaaa agcaggcgcc cgagctcctc 420
 aagctgcagt ccatggtgga tctcctggag ggcaccctgt acagcatgga cttgatgaag 480
 gtgcacgcct acgtccacaa ggtggcctcc cagatgaaca cactggaaga gagcatcaag 540
 gccaacctga gccgggagaa tgaggtggtg aaggacagcg tgcgccacct cagtgagcag 600
 ttgaggcact atgagaatca ctctgccatc atgctgggca tcaagaagga gctgtcccgc 660
 ctgggcctcc agctgctgca gaaggatgcc gccgccgcc ctgccacctc tgccacgggc 720
 actggtagca aggccagga cacagctaga ggaaaaggca aggacatcag caagtatggc 780
 agtgtgcaga aaagctttgc agacagaggc ctcccaaaac ctccaagga gaagctgctt 840
 caggtggaga agctgagaaa ggagagcggc aaggggcagtt tcctccagcc cacagccaag 900
 ccccgcgccc tggcccagca gcaggctgtg atccggggct tcacctacta caaggcaggc 960
 aagcaggagg tgaccgaggc ggtggcagac aacacctcc agggcacttc ctggctggag 1020
 caactgccgc ccaaggtgga gggcaggtcc aactccgcag agcccaactc cgcagagcag 1080
 gatgaggctg agcccaggct ctccgagcga gtggacctgg cttctggcac cccacttca 1140
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 accgagccac cttcaggtcc agaagtctcc agccaaggca gagaggcgag ctgtgagggc 1260
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 tggatgaagg accctgcagc tcgagacgac aggatctatg tcaccaacta ctactatgga 1380
 aacagcctgg tggagttccg caacctggaa aacttcaagc aaggccgctg gagtaacatg 1440
 tacaagctac cctacaactg gatcggcaca ggccacgtgg tgtaccaggg cgccttctac 1500
 tacaaccgcg ccttcaccaa gaacatcatc aagtacgacc tacggcagcg cttcgtggcc 1560
 tcctggcgcg tctgcccga cgtggtatat gaggacacca caccttgga gtggcgcgga 1620
 cactcggaca ttgactttgc cgtggacgag agcggcctgt gggatcatcta ccccgcgctg 1680
 gacgaccgcg atgaggccca gcccgaggtg atcgtcctga gtcgcttga ccccgcgat 1740
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 gtcgcctacg ctttcgacac gcacacggcg gccccagct gccgttcctc 1920
 aacgagcacg cctacaccac ccagatcgac tacaaccca aggagcgggt gctgtacgcc 1980
 tgggacaatg gccaccagct cacctacacc ctccacttcg tggctctga 2028

<210> 267
 <211> 675
 <212> PRT
 <213> Homo sapiens

<400> 267
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 Gly Lys Gly Asn Lys Glu Arg Phe Lys Gly Glu Tyr Gln Leu Thr Trp
 20 25 30
 Ala Leu Lys Ala Thr His Cys Leu Ala Ala Thr His Trp Ser Pro Ser
 35 40 45
 Cys Pro Pro Gln Gln Val Phe Gly Asp Leu Asp Gln Val Arg Met Thr
 50 55 60
 Ser Glu Gly Ser Asp Cys Arg Cys Lys Cys Ile Met Arg Pro Leu Ser
 65 70 75 80
 Lys Asp Ala Cys Ser Arg Val Arg Ser Gly Arg Ala Arg Val Glu Asp
 85 90 95
 Phe Tyr Thr Val Glu Thr Val Ser Ser Gly Thr Asp Cys Arg Cys Ser
 100 105 110
 Cys Thr Ala Pro Pro Ser Ser Leu Asn Pro Cys Glu Asn Glu Trp Lys
 115 120 125
 Met Glu Lys Leu Lys Lys Gln Ala Pro Glu Leu Leu Lys Leu Gln Ser
 130 135 140
 Met Val Asp Leu Leu Glu Gly Thr Leu Tyr Ser Met Asp Leu Met Lys
 145 150 155 160
 Val His Ala Tyr Val His Lys Val Ala Ser Gln Met Asn Thr Leu Glu
 165 170 175
 Glu Ser Ile Lys Ala Asn Leu Ser Arg Glu Asn Glu Val Val Lys Asp
 180 185 190
 Ser Val Arg His Leu Ser Glu Gln Leu Arg His Tyr Glu Asn His Ser
 195 200 205
 Ala Ile Met Leu Gly Ile Lys Lys Glu Leu Ser Arg Leu Gly Leu Gln
 210 215 220
 Leu Leu Gln Lys Asp Ala Ala Ala Pro Ala Thr Pro Ala Thr Gly
 225 230 235 240
 Thr Gly Ser Lys Ala Gln Asp Thr Ala Arg Gly Lys Gly Lys Asp Ile
 245 250 255
 Ser Lys Tyr Gly Ser Val Gln Lys Ser Phe Ala Asp Arg Gly Leu Pro
 260 265 270
 Lys Pro Pro Lys Glu Lys Leu Leu Gln Val Glu Lys Leu Arg Lys Glu
 275 280 285
 Ser Gly Lys Gly Ser Phe Leu Gln Pro Thr Ala Lys Pro Arg Ala Leu
 290 295 300
 Ala Gln Gln Gln Ala Val Ile Arg Gly Phe Thr Tyr Tyr Lys Ala Gly
 305 310 315 320
 Lys Gln Glu Val Thr Glu Ala Val Ala Asp Asn Thr Leu Gln Gly Thr
 325 330 335
 Ser Trp Leu Glu Gln Leu Pro Pro Lys Val Glu Gly Arg Ser Asn Ser
 340 345 350
 Ala Glu Pro Asn Ser Ala Glu Gln Asp Glu Ala Glu Pro Arg Ser Ser
 355 360 365
 Glu Arg Val Asp Leu Ala Ser Gly Thr Pro Thr Ser Ile Pro Ala Thr
 370 375 380
 Thr Thr Thr Ala Thr Thr Thr Pro Thr Pro Thr Thr Ser Leu Leu Pro
 385 390 395 400
 Thr Glu Pro Pro Ser Gly Pro Glu Val Ser Ser Gln Gly Arg Glu Ala
 405 410 415
 Ser Cys Glu Gly Thr Leu Arg Ala Val Asp Pro Pro Val Arg His His
 420 425 430

Ser Tyr Gly Arg His Glu Gly Ala Trp Met Lys Asp Pro Ala Ala Arg
435 440 445
Asp Asp Arg Ile Tyr Val Thr Asn Tyr Tyr Tyr Gly Asn Ser Leu Val
450 455 460
Glu Phe Arg Asn Leu Glu Asn Phe Lys Gln Gly Arg Trp Ser Asn Met
465 470 475 480
Tyr Lys Leu Pro Tyr Asn Trp Ile Gly Thr Gly His Val Val Tyr Gln
485 490 495
Gly Ala Phe Tyr Tyr Asn Arg Ala Phe Thr Lys Asn Ile Ile Lys Tyr
500 505 510
Asp Leu Arg Gln Arg Phe Val Ala Ser Trp Ala Leu Leu Pro Asp Val
515 520 525
Val Tyr Glu Asp Thr Thr Pro Trp Lys Trp Arg Gly His Ser Asp Ile
530 535 540
Asp Phe Ala Val Asp Glu Ser Gly Leu Trp Val Ile Tyr Pro Ala Val
545 550 555 560
Asp Asp Arg Asp Glu Ala Gln Pro Glu Val Ile Val Leu Ser Arg Leu
565 570 575
Asp Pro Gly Asp Leu Ser Val His Arg Glu Thr Thr Trp Lys Thr Arg
580 585 590
Leu Arg Arg Asn Ser Tyr Gly Asn Cys Phe Leu Val Cys Gly Ile Leu
595 600 605
Tyr Ala Val Asp Thr Tyr Asn Gln Gln Glu Gly Gln Val Ala Tyr Ala
610 615 620
Phe Asp Thr His Thr Gly Thr Asp Ala Arg Pro Gln Leu Pro Phe Leu
625 630 635 640
Asn Glu His Ala Tyr Thr Thr Gln Ile Asp Tyr Asn Pro Lys Glu Arg
645 650 655
Val Leu Tyr Ala Trp Asp Asn Gly His Gln Leu Thr Tyr Thr Leu His
660 665 670
Phe Val Val
675

<210> 268
<211> 1909
<212> DNA
<213> Homo sapiens

<400> 268
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tctactgtat gaattatgct ttaagtagaa ttcagtgcca aggagaactt ggtgaaataa 180
attattttta tttttttttt atcctttaca aagccatgga ttttatttgg ttgatgtgtg 240
ctctgtacac aagccatttc aataggatgg agctgttaat tattttccaa agagtaatag 300
acatgcaaaa gtttcaataa aaactgggcc attaacaat aaattaataa actaataagc 360
attcccttct aggtttttgc caaactgcct atccaataac aaatttgaga atcgttgaaa 420
aagctagtta tatttcagag aatgattttt cattattgaa actgttctcc ctagcaggcc 480
attttccctt tttctggga gtttagcaag tttaggagag aatagtcatg aaaagaaagg 540
gaagaaaggg gagaaggga gaggttaaaa agtaagtgt cagacctatg aacgtaatcc 600
ctttgctaga aatattttaag agcagctcag cttgggtgaa actgagtttt gtcattcttc 660
atatttgtag gaaggtatct tctgacttgc aatgcagcta gatgtaaaat tttattttat 720
catcctagaa agccttgact agaaaaatga ataaatattg agggtttctt gtccatatct 780
ggcttgcatg tgccagaaag cagagaatag aaaatgtaat ctccaacatc caagcatcga 840
aaccgaaggg gtaggcaatt ctatgtagg tttggacatg aagtttgggtg catcttggtt 900
tatgctggct caactgctat taaacctctc tggcttatag tctcttcatt ctattagaca 960
agcacgtatc gaacacttgc ttcgcacaag gctctttagt taacaattta gcagctactg 1020
tttgtgttaa acacactttt caccaaatag gttctgaggc aaacgagagc aatgactatt 1080
taaagaaagg ctttcccagc atacttaca catcccaaaa ctaaaaagat caactcttcc 1140
aactgagaaa agactcctgg ctttgaatgg aaacttacag cagagagtca caggccacgg 1200
caacaacaac gacaacaaca aacatttgga atattattct caactcacgt ttttaataata 1260
catcttaatt atttttctag tagagaaact acaaatcagc ctcttcaaca tttatataca 1320

gtttaataag	cctcttgcaa	gttacttggt	ctctcacctg	aggatatttt	ttcctcccca	1380
ccttgcccct	gttcctccct	tcctcttctc	cctttgcaag	aggaaatatt	taacatattt	1440
gggtccaact	tcaataatgt	aataattaat	acattaaaag	catttaactt	cctttctaga	1500
aaaatgcaca	ggctaaggca	tagacaaaac	aaagagaaat	gctgagaaat	ttgccactgg	1560
agacaagcaa	tctgaataaa	tatttgccaa	aagttctttt	tatgtcatat	agtgtcagga	1620
tttgaaggag	ctattttttt	taatgttgca	actagcaact	catcttcgga	agacacagcc	1680
aggagaatga	agtagaagtg	aaaggtttat	aaatccattt	gtaagcattt	atcccatata	1740
ttttaaatte	aagaaaaatt	gtgtttatct	ttagaatttt	gtattcaata	ctttatgtac	1800
tatgtgactc	atgcttctgg	ataaataaag	caccaaatat	gtatctgtaa	ccacaatcac	1860
acatatata	ttaaatatat	atctatataa	caaaaaaaaa	aaaaaaaaa		1909

<210> 269
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 269

Met	Tyr	Gly	Asn	Ile	Leu	Cys	Pro	Thr	Leu	His	Thr	Leu	Cys	Thr	Gln
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Ile	Leu	Tyr	Cys	Met	Asn	Tyr	Ala	Leu	Ser	Arg	Ile	Gln	Cys	Gln	Gly
			20					25					30		
Glu	Leu	Gly	Glu	Ile	Asn	Tyr	Phe	Asn	Phe	Phe	Phe	Ile	Leu	Tyr	Lys
		35					40					45			
Ala	Met	Asp	Phe	Ile	Trp	Leu	Met	Cys	Ala	Leu	Tyr	Thr	Ser	His	Phe
	50					55					60				
Asn	Arg	Met	Glu	Leu	Leu	Ile	Ile	Phe	Gln	Arg	Val	Ile	Asp	Met	Gln
65				70					75					80	
Lys	Phe	Gln													

<210> 270
 <211> 1720
 <212> DNA
 <213> Homo sapiens

<400> 270

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tggtgaatat	ctctgaacct	gggcatgaaa	cagagagatg	tcctaactct	gggtgagagg	180
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gggtgaaagg	gctgagagtg	tgggtggggg	ccacttctga	gcacccatgt	ggcaccact	420
gctgggtcct	gtttgtggct	gggcactcag	gaaaatgttt	ttggtgctaa	gagtaaaaag	480
ccaaccaaca	aacacatctc	ttttttctgt	ctattcactg	gaaagtaaaa	gcagtctggg	540
cgcaggctgg	ggacccagat	ggaattcaaa	cttatgcctg	ctctcaaggt	gctcacgggt	600
gctgataaac	agctggataa	aatgaagagt	ctatgagtga	gggatgcaga	gccagggaag	660
gctgggtggg	tgatgccacc	agcacagggg	tatgagtttg	cagctgccaa	ggggccaagg	720
gatgagctgg	ggccctcctt	cccaatggca	tctccccctg	gtctggaact	gaagacactg	780
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gggaacacga	gactgggcag	ctcaccctgt	ccccctgggg	gtgtctcttc	actgccccga	960
tcccagcggg	atgatctgtc	ccttcattca	gaggaggggc	cagccctgga	gcccgtgagc	1020
cgccccgtgg	attatggctt	tgtttccgcc	ctcgttttcc	tggtgagtg	gattcttctg	1080
gtggtgacag	catacgccat	ccccctgtag	gctcgagtca	atccggacac	agtgcagcgc	1140
cgggagatgg	aacgactgga	gatgtactac	gcccgcctag	gctcccacct	ggacaggtgc	1200
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gtctccctgt	tccagggcga	gctgtaccgc	cggaggacct	tcgtccccgg	caagggtctc	1320
aggaagacct	acgggtccat	taacctgcgc	atgagacagc	tcaatgggga	tggggggccag	1380
gccctgggtg	agaatgaagt	tgtccaggtc	tcagagacta	gccacaccct	ccagaggtct	1440
taagaactag	cccaccttat	ctggctgctt	tagctccagt	gctacaaggt	ccacccccctg	1500

ctcccgccca	cctgaccctt	gcccaaggccc	tgggggtttta	aactgagctc	acatagggcc	1560
ttgtggaaga	agtactgggt	gctggaggga	gagctcgggg	cccagcccat	gccccacacg	1620
ggcaagcagc	ccactgatct	gtttttagtc	tgaggttttg	catacggttt	tgtttggagg	1680
atggcttctg	ctgctaataa	tacaaaagtt	tggaaccgc			1720

<210> 271
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 271

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Asp	Glu	Leu	Gly	Pro	Ser	Phe	Pro	Met	Ala	Ser	Pro	Pro	Gly	Leu	Glu
			20					25					30		
Leu	Lys	Thr	Leu	Ser	Asn	Gly	Pro	Gln	Ala	Pro	Arg	Arg	Ser	Ala	Pro
		35				40						45			
Leu	Gly	Pro	Val	Ala	Pro	Thr	Arg	Glu	Gly	Val	Glu	Asn	Ala	Cys	Phe
	50					55					60				
Ser	Ser	Glu	Glu	His	Glu	Thr	His	Phe	Gln	Asn	Pro	Gly	Asn	Thr	Arg
65				70					75					80	
Leu	Gly	Ser	Ser	Pro	Ser	Pro	Pro	Gly	Gly	Val	Ser	Ser	Leu	Pro	Arg
			85					90					95		
Ser	Gln	Arg	Asp	Asp	Leu	Ser	Leu	His	Ser	Glu	Glu	Gly	Pro	Ala	Leu
			100					105					110		
Glu	Pro	Val	Ser	Arg	Pro	Val	Asp	Tyr	Gly	Phe	Val	Ser	Ala	Leu	Val
		115					120						125		
Phe	Leu	Val	Ser	Gly	Ile	Leu	Leu	Val	Val	Thr	Ala	Tyr	Ala	Ile	Pro
	130					135					140				
Arg	Glu	Ala	Arg	Val	Asn	Pro	Asp	Thr	Val	Thr	Ala	Arg	Glu	Met	Glu
145					150					155					160
Arg	Leu	Glu	Met	Tyr	Ala	Arg	Leu	Gly	Ser	His	Leu	Asp	Arg	Cys	
			165					170					175		
Ile	Ile	Ala	Gly	Leu	Gly	Leu	Leu	Thr	Val	Gly	Gly	Met	Leu	Leu	Ser
			180					185					190		
Val	Leu	Leu	Met	Val	Ser	Leu	Cys	Lys	Gly	Glu	Leu	Tyr	Arg	Arg	Arg
		195					200					205			
Thr	Phe	Val	Pro	Gly	Lys	Gly	Ser	Arg	Lys	Thr	Tyr	Gly	Ser	Ile	Asn
	210					215					220				
Leu	Arg	Met	Arg	Gln	Leu	Asn	Gly	Asp	Gly	Gly	Gln	Ala	Leu	Val	Glu
225					230					235					240
Asn	Glu	Val	Val	Gln	Val	Ser	Glu	Thr	Ser	His	Thr	Leu	Gln	Arg	Ser
			245					250						255	

<210> 272
 <211> 1111
 <212> DNA
 <213> Homo sapiens

<400> 272

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acgccatcaa	gaagaagatg	cagatgctga	agctcgacaa	ggagaacgcc	ttggatcgag	120
ctgagcaggc	ggaggccgac	aagaaggcgg	cggaagacag	gagcaagcag	ctggaagatg	180
agctgggtgtc	actgcaaaaag	aaactcaagg	gcaccgaaga	tgaactggac	aaatactctg	240
aggctctcaa	agatgccag	gagaagctgg	agctggcaga	gaaaaaggcc	accgatgctg	300
aagccgacgt	agcttctctg	aacagacgca	tcagctggg	tgaggaagag	ttggatcggtg	360
cccaggagcg	tctggcaaca	gctttgcaga	agctggagga	agctgagaag	gcagcagatg	420
agagttagag	aggcatgaaa	gtcattgaga	gtcagagccca	aaaagatgaa	gaaaaaatgg	480
aaattcagga	gatccaactg	aaagaggcca	agcacattgc	tgaagatgcc	gaccgcaaat	540
acgaagaggt	ggcccgttaag	ctgggtcatca	ttgagagcga	cctggaacgt	gcagaggagc	600
gggctgagct	ctcagaaggc	aaatgtgccg	agcttgaaga	agaattgaaa	actgtgacga	660

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acaacttgaa gtcactggag gctcaggctg agaagtactc gcagaaggaa gacagatatg      720
aggaagagat caaggtcctt tccgacaagc tgaaggaggc tgagactcgg gctgagtttg      780
cggagaggtc agtaactaaa ttggagaaaa gcattgatga cttagaagac gagctgtacg      840
ctcagaaact gaagtacaaa gccatcagcg aggagctgga ccacgctctc aacgatatga      900
cttccatata agtttctttg cttcacttct cccaagactc cctcgtcgag ctggatgtcc      960
cacctctctg agctctgcat ttgtctattc tccagctgac cctggttctc tctcttagca     1020
tcctgcctta gagccaggca cacactgtgc tttctattgt acagaagctc ttcgtttcag     1080
tgtcaaataa acactgtgta agctaaaaaa a                                     1111

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<210> 273
<211> 284
<212> PRT
<213> Homo sapiens

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<400> 273
Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
1      5      10      15
Asn Ala Leu Asp Arg Ala Glu Gln Ala Ala Asp Lys Lys Ala Ala
20     25     30
Glu Asp Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ser Leu Gln Lys
35     40     45
Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
50     55     60
Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
65     70     75     80
Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
85     90     95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
100    105    110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
115    120    125
Val Ile Glu Ser Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
130    135    140
Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg
145    150    155    160
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu
165    170    175
Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu
180    185    190
Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
195    200    205
Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Arg Tyr Glu Glu Glu
210    215    220
Ile Lys Val Leu Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
225    230    235    240
Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
245    250    255
Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
260    265    270
Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
275    280

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<210> 274
<211> 2032
<212> DNA
<213> Homo sapiens

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<400> 274
caccgccgag cccggcctcg gcctccgccg cttgttgctg cgccccgccg gcgagcccg      60
ccgcacgctc ccccgccggc ggccaccatg agcacaggcc tgcggtacaa gagcaagctg     120
gcgaccccgag aggacaagca ggacattgac aagcagtacg tgggcttcgc cacactgccc     180

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aaccaggtgc accgcaagtc ggtgaagaaa ggctttgact tcacactcat ggtggctggg 240
gagtcaggcc tggggaagtc cacactggtc cacagcctct tcctgacaga cttgtacaag 300
gaccggaagc tgctcagtcg tgaggagcgc atcagccaga cggtagagat tctaaaacac 360
acggtggaca ttgaggagaa gggagtcaag ctgaagctca ccatcgtgga cacgccggga 420
ttcggggacg ctgtcaacaa caccgagtcg tgggaagcca tcaccgacta tgtggaccag 480
cagtttgagc agtacttccg tgatgagagc ggcctcaacc gaaagaacat ccaagacaac 540
cgagtgcact gctgcctata cttcatctcc cccttcgggc atgggctgcg gccagtggat 600
gtgggtttca tgaaggcatt gcatgagaag gtcaacatcg tgcctctcat cgccaaagct 660
gactgtcttg tccccagtgat gatccggaag ctgaaggagc ggatccggga ggagattgac 720
aagtttgga tccatgtata ccagttccct gagtgtgact cggacgagga tgaggacttc 780
aagcagcagg accgggaact gaaggagagc gcgccttcg ccgttatagg cagcaacacg 840
gtggtggagg ccaaggggca gcgggtccgg ggccgactgt acccctgggg gatcgtggag 900
gtggagaacc aggcgcattg cgacttcgtg aagctgcgca acatgctcat ccgcacgcat 960
atgcacgacc tcaaggacgt gacgtgcgac gtgcactacg agaactaccg cgcgactgc 1020
atccagcaga tgaccagcaa actgaccagc gacagccgca tggagagccc catcccgatc 1080
ctgccgctgc ccaccccgga cgccgagact gagaagctta tcaggatgaa ggatgaggaa 1140
ctgaggcgca tgcaggagat gctgcagagg atgaagcagc agatgcagga ccagtgcgc 1200
tcgccgcgga cacacggtcc gtctccggga cgccctcgca ccctggaca ccagaccgga 1260
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gagtgtctgag accccatttt ctgtcgaggc gggccgagtc tcccttatc cccagacgcc 1680
tagcgggcag ggttgggctg aatcaaattg gagccctcca gacataagga ggccagaggc 1740
tgcaaggagc ggggtcgtga ccgcttacac cccttctcca cagcccgccc cgacctggag 1800
ggccccggg gcactgggag gtgagccacc tcctggcaac tctcggtgcc gtcccctgcc 1860
ctcgtctgag gcctcttctc cccagcaccg ctgtgggtgt cggggtcct gagcctaggc 1920
ctcccgatgt tcccacccgc atgatccctt cccgccacac gatgtccctg tttcttccgt 1980
tgtgaatgcc gcgtcctgtc ctggtgacag gagaacaatg ttggtgaacg tc 2032

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<210> 275
<211> 369
<212> PRT
<213> Homo sapiens

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<400> 275
Met Ser Thr Gly Leu Arg Tyr Lys Ser Lys Leu Ala Thr Pro Glu Asp
1 5 10 15
Lys Gln Asp Ile Asp Lys Gln Tyr Val Gly Phe Ala Thr Leu Pro Asn
20 25 30
Gln Val His Arg Lys Ser Val Lys Lys Gly Phe Asp Phe Thr Leu Met
35 40 45
Val Ala Gly Glu Ser Gly Leu Gly Lys Ser Thr Leu Val His Ser Leu
50 55 60
Phe Leu Thr Asp Leu Tyr Lys Asp Arg Lys Leu Leu Ser Ala Glu Glu
65 70 75 80
Arg Ile Ser Gln Thr Val Glu Ile Leu Lys His Thr Val Asp Ile Glu
85 90 95
Glu Lys Gly Val Lys Leu Lys Leu Thr Ile Val Asp Thr Pro Gly Phe
100 105 110
Gly Asp Ala Val Asn Asn Thr Glu Cys Trp Lys Pro Ile Thr Asp Tyr
115 120 125
Val Asp Gln Gln Phe Glu Gln Tyr Phe Arg Asp Glu Ser Gly Leu Asn
130 135 140
Arg Lys Asn Ile Gln Asp Asn Arg Val His Cys Cys Leu Tyr Phe Ile
145 150 155 160
Ser Pro Phe Gly His Gly Leu Arg Pro Val Asp Val Gly Phe Met Lys
165 170 175
Ala Leu His Glu Lys Val Asn Ile Val Pro Leu Ile Ala Lys Ala Asp

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[illegible]

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<210> 276
<211> 1344
<212> DNA
<213> Homo sapiens
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<400> 276						
tgcagactga	tatggattca	ccactgctaa	cacctcctgg	ttggaactac	aggaatagaa	60
ctggaaaggg	aaaaaaggca	gcattccacca	catcccaatc	ctgaatccaa	gagtctaaga	120
tagtccccca	ctcctatctc	agggcttagag	gattagatta	atctctctgga	gggaagactc	180
ttccttgaaa	catttttttt	tatctgcctg	tagctattgg	gataattcgg	gaaatccaca	240
gggacagttc	aagtcatctt	tgtcctctac	tttctgttgc	actctcagcc	ttgttctctt	300
tttagaaact	gcatggtaac	tattatatag	ctaaagaaga	gcattctgac	ctctgccttg	360
ggacttctctg	gatcctcctc	ttcttataaa	tacaagggca	gagctgggat	cccggggagc	420
caggaagcag	tgagcccagg	agtcctcggc	cagccctgcc	tgcccaccag	gaggatgaag	480
gtctccgtgg	ctgcctctctc	ctgcctcatg	cttgttgctg	tccctgggatc	ccaggccag	540
ttcacaaatg	atgcagagac	agagttaatg	atgtcaaagc	ttccactgga	aaatccagta	600
gttctgaaca	gctttcactt	tgctgctgac	tgctgcacct	cctacatctc	acaaagcattc	660
ccgtgtttac	tcatgaaaag	ttatttttgaa	acgagcagcg	agtgtctccaa	gccaggtgtc	720
atattcctca	ccaagaaggg	gcggcaagtc	tgtgccaac	ccagtggtcc	gggagttcag	780
gattgcatga	aaaagctgaa	gcctactca	atataataat	aaagagacaa	aagaggtccag	840
ccaccacact	ccaacacctc	ctgagcctct	gaagctccca	ccaggccagc	tctcctccca	900
caacagcttc	ccacagcatg	aagatctcctg	tggtcgccat	tccctttcttc	ctcctcatca	960
ccatcgccct	agggaccaag	actgaatctt	cctcacgggg	accttaccac	ccctcagagt	1020
gctgcttcac	ctacatactc	tacaagaatc	cgctcagcg	gattatggat	tactatgaga	1080
ccaacagcca	gtgctccaag	cccgggaattg	tcttcatcac	caaaaggggc	cattccgtct	1140
gtaccaaccc	cagtgacaag	tgggtccagg	actatatcaa	ggacatgaag	gagaactgag	1200
tgacccagaa	ggggtggcga	aggcacagct	cagagacata	aagagaagat	gccaaaggcc	1260
cctctctccac	ccaccgcgtaa	ctctcagccc	cagtcacctt	cttggagctt	ccctgctttg	1320
aattaaagac	cactcatgct	cttc				1344

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<210> 277
<211> 93
<212> PRT
<213> Homo sapiens
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<400> 277
Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15
Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
20 25 30
Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg
35 40 45
Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
50 55 60
Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp
65 70 75 80
Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn
85 90

<210> 278
<211> 1344
<212> DNA
<213> Homo sapiens

<400> 278
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tagtcccca ctctatctc aggcttagag gattagatta atctcctgga gggaagactc 180
ttccttgaaa catttttttt tatctgcctg tagctattgg gataattcgg gaaatccaca 240
gggacagttc aagtcattct tgcctcttac tttctgttgc actctcagcc ttgttctctt 300
tttagaaact gcatggtaac tattatatag cttaaagaaga gcattctgac ctctgccctg 360
ggacttctcg gatcctcttc ttcttataaa tacaagggca gagctggtat cccggggagc 420
caggaagcag tgagcccagg agtccctcggc cagccctgcc tgcccaccag gaggatgaag 480
gtctccgtgg ctgccctctc ctgcctcatg cttgttgctg tccttggatc ccaggcccag 540
ttcacaaatg atgcagagac agagttaatg atgtcaaagc ttccactgga aaatccagta 600
gttctgaaca gcttttcact tgctgctgac tgctgcacct cctacatctc acaaagcatc 660
ccgtgttcac tcatgaaaag ttattttgaa acgagcagcg agtgctccaa gccaggtgtc 720
atattcctca ccaagaaggg gcggcaagtc tgtgccaaac ccagtgttcc gggagttcag 780
gattgcatga aaaagctgaa gccctactca atataataat aaagagacaa aagaggccag 840
ccaccacact ccaacacctc ctgagcctct gaagctccca ccaggccagc tctcctccca 900
caacagcttc ccacagcatg aagatctcgg tggctgccat tcccttcttc ctctcatca 960
ccatcgccct agggaccaag actgaatcct cctcacgggg accttaccac ccctcagagt 1020
gctgcttcac ctacactacc tacaagatcc cgcgtcagcg gattatggat tactatgaga 1080
ccaacagcca gtgctccaag cccggaattg tcttcatcac caaaaggggc cattccgtct 1140
gtaccaaccc cagtgacaag tgggtccagg actatatcaa ggacatgaag gagaactgag 1200
tgaccagaa ggggtggcga aggcacagct cagagacata aagagaagat gccaaggccc 1260
ctcctccac ccaccgctaa ctctcagccc cagtcaccct cttggagctt ccttgctttg 1320
aattaaagac cactcatgct ctctc 1344

<210> 279
<211> 93
<212> PRT
<213> Homo sapiens

<400> 279
Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15
Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
20 25 30
Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg
35 40 45
Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
50 55 60
Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp
65 70 75 80
Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn

<210> 280
 <211> 1344
 <212> DNA
 <213> Homo sapiens

<400> 280
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 tagtccccca ctccatctctc aggccttagag gattagatta atctcctgga gggaagactc 180
 ttcccttgaaa cattttttttt tatctgcctg tagctatttg gataattcgg gaaatccaca 240
 gggacagttc aagtcattctt tgtcctctac tttctgttg actctcagcc ttgttctctt 300
 tttagaaact gcatggtaac tattatatag ctaaagaaga gcattctgac ctctgccctg 360
 ggacttcctg gatcctcctc ttcttataaa tacaagggca gagctggtat cccggggagc 420
 caggaagcag tgagcccagg agtcctcggc cagccctgcc tgcccaccag gaggatgaag 480
 gtctccgtgg ctgccctctc ctgcctcatg cttgttgctg tccttggtat ccaggcccag 540
 ttcacaaatg atgcagagac aggtttaatg atgtcaaagc ttccactgga aaatccagta 600
 gttctgaaca gctttcactt tgcgtctgac tgcgtcacct cctacatctc acaaagcatc 660
 ccgtgttcac tcatgaaaag ttattttgaa acgagcagcg agtgctccaa gccaggtgtc 720
 atattcctca ccaagaaggg gcggcaagtc tgtgccaaac ccagtgtcc gggagttcag 780
 gattgcatga aaaagctgaa gcctactca atataataat aaagagacaa aagaggccag 840
 ccacccacct ccaacacctc ctgagcctct gaagctccca ccaggccagc tctcctcca 900
 caacagcttc ccacagcatg aagatctcgg tggctgccat tcccttcttc ctctcatca 960
 ccatcgccct agggaccaag actgaatcct cctcacgggg accttaccac ccctcagagt 1020
 gctgcttcac ctacactacc tacaagatcc cgcgtcagcg gattatggat tactatgaga 1080
 ccaacagcca gtgctccaag cccggaattg tcttcatcac caaaaggggc cattccgtct 1140
 gtaccaaccc cagtgacaag tgggtccagg actatatcaa ggacatgaag gagaactgag 1200
 tgaccagaa ggggtggcga aggcacagct cagagacata aagagaagat gccaggccc 1260
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 aattaaagac cactcatgct ctcc 1344

<210> 281
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 281
 Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
 1 5 10 15
 Ala Leu Gly Thr Lys Thr Glu Ser Ser Arg Gly Pro Tyr His Pro
 20 25 30
 Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg
 35 40 45
 Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
 50 55 60
 Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp
 65 70 75 80
 Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn
 85 90

<210> 282
 <211> 2750
 <212> DNA
 <213> Homo sapiens

<400> 282
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 atcggcgccg ccaaggccct gctggcgctg ctggaccgat tgctatttta tgtgtcactt 120
 gagagaaaac agttaataa aaactaattt aatacaaaat ttagctgggc ttggtggcac 180
 atgcctgtaa tccagctac tcgggaggct gaagcaggag agttgcttga acctgggagg 240

cgtagattgc	agtgagccaa	gatcatccca	ctgcactcca	gcctggggcga	cagagtgaga	300
cacagtctca	aacaaaaacaa	aacaaaaagg	aatttagagt	agcccatggg	gtagctatgc	360
ttaccaacat	ccagtgggat	ccccgtggat	tctccctacc	cctttttaag	aggattgttg	420
ctaccttcta	gggctccgtt	tacagggatc	actgatttct	cagtcacgaa	gaacaaaatt	480
atccagcttt	gcttggacct	gaccactaca	gtccagaagg	attgctttgt	agcggaaatg	540
gaggataaa	ttttaactgt	ggtcaagggt	ttaaatggca	tctgtgacaa	aacaatccga	600
tctaccacag	atcctgtgat	gagccagtgt	gcatgtctgg	aggaagttca	cttaccaaac	660
attaaacctg	gggaaggcct	gggcatgtac	atcaaataca	cctatgatgg	gttacacgtg	720
attactggaa	ccacagaaaa	ttctcctgca	gacagatctc	agaagattca	tgctgggtgac	780
gaagtcattc	aagttaatca	gcaaactgtg	gtgggatggc	agctgaaaaa	tctgggtgaag	840
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ttcaacttta	ctcctgctcc	cctgaaaaac	ctacggtgga	agccacctct	tgtacagacc	960
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cgggatgaga	atggcagttt	tgtttatgga	gggtccagta	agtgcaaaaca	accattgcct	1140
ggtcctaagg	gttcagagtc	cccgaattcc	ttcttgacc	aggaaagccg	gagacgaaga	1200
ttcaccattg	cagactcgga	tcagttgcct	gggtactcgg	tggaaaccaa	cattctgccc	1260
acaaaaatga	gagagaaaa	accatcttat	grcaaggcac	ggcctttgtc	catgcctgtc	1320
gatgggaact	aggatgggat	tggtggacct	tttgccagac	ctcgaggtca	tggcaggaaa	1380
ggggaggatg	ccctttgccg	gtatttcagt	aacgagcgga	ttcctccgat	cattgaagag	1440
agctcctctc	ccccataccg	gttctccaga	cccacgaccg	agcggcatct	ggtcgggggt	1500
gcggaactaca	tccgaggaag	caggtgctac	atcaactcag	atctccacag	cagegccacg	1560
attccattcc	aggaggaagg	gaccaaaaa	aaatctggct	cctcagctac	gaagtcctcg	1620
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gagggaccct	gctcaggcca	cctgcctggc	tcctgcccc	agtgccttgc	ttttacagtg	1740
gacagcctct	tctcgtttcg	gcctcagtat	tatgtaggga	ccttatgcaa	tttctttttc	1800
ttttgaaaag	ttatctactg	cccttcttgg	aagtttgcag	gattggatgg	gaacaaattc	1860
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gacgttatgg	tcattgtgag	ggactggtgg	cattgttcc	ttttgagggg	ctgggggggac	2040
tcaaattggg	ggctgttttc	acacagatgt	gttggtttgt	gggtccaaact	ctttatctga	2100
aaaagccagt	gagaaaaacat	ttttgatttg	atttttctaa	actatctacc	atattttaag	2160
tgtagcagct	ttgactttgc	attgactttg	caagtatctg	atttctcctt	tgaggcagag	2220
gtttaagtgt	aggcctgtta	cacttgtttg	ataccttttt	catgacagtc	tcagtataga	2280
tcagttggta	cagaaataca	tgaacacatt	ttgatagggc	ttatttcaca	caaagaagtt	2340
tatggttatt	tgtgtggggg	ggtgtgtgta	tatattattg	tctttaaggg	aaaagaagct	2400
ataagattcg	ctgacagcca	aagtatcatt	tagaaaagtg	aagaacaaga	tttaggttga	2460
tgaagatac	atgagtttgc	attttgacct	gttcagtgtc	tgtcttccag	cacggtgtgt	2520
acacttcttc	aaaattgtac	acagtttgc	aattagaaat	atcttgga	gcctcatggt	2580
cactaatttt	caactagcat	cagggtat	gaaaacgtgt	gtctggatat	taactcttgt	2640
ttaaactgaa	tgtatgat	tttggttag	tggaaaagta	ctatcttgtt	aatttaagta	2700
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<210> 283
 <211> 380
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> VARIANT
 <222> (1)...(380)
 <223> Xaa = Any Amino Acid

<400> 283
 Met Glu Asp Lys Val Leu Thr Val Val Lys Val Leu Asn Gly Ile Cys
 1 5 10 15
 Asp Lys Thr Ile Arg Ser Thr Thr Asp Pro Val Met Ser Gln Cys Ala
 20 25 30
 Cys Leu Glu Val His Leu Pro Asn Ile Lys Pro Gly Glu Gly Leu
 35 40 45
 Gly Met Tyr Ile Lys Ser Thr Tyr Asp Gly Leu His Val Ile Thr Gly

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100

50	55	60
Thr Thr Glu Asn Ser Pro Ala Asp Arg Ser Gln Lys Ile His Ala Gly		
65	70	75
Asp Glu Val Ile Gln Val Asn Gln Gln Thr Val Val Gly Trp Gln Leu		80
	85	90
Lys Asn Leu Val Lys Lys Leu Arg Glu Asn Pro Thr Gly Val Val Leu		95
	100	105
Leu Leu Lys Lys Arg Pro Thr Gly Ser Phe Asn Phe Thr Pro Ala Pro		110
	115	120
Leu Lys Asn Leu Arg Trp Lys Pro Pro Leu Val Gln Thr Ser Pro Pro		125
	130	135
Pro Ala Thr Thr Gln Ser Pro Glu Ser Thr Met Asp Thr Ser Leu Lys		140
	145	150
Lys Glu Lys Ser Ala Ile Leu Asp Leu Tyr Ile Pro Pro Pro Pro Ala		155
	165	170
Val Pro Tyr Ser Pro Arg Asp Glu Asn Gly Ser Phe Val Tyr Gly Gly		175
	180	185
Ser Ser Lys Cys Lys Gln Pro Leu Pro Gly Pro Lys Gly Ser Glu Ser		190
	195	200
Pro Asn Ser Phe Leu Asp Gln Glu Ser Arg Arg Arg Arg Phe Thr Ile		205
	210	215
Ala Asp Ser Asp Gln Leu Pro Gly Tyr Ser Val Glu Thr Asn Ile Leu		220
	225	230
Pro Thr Lys Met Arg Glu Lys Thr Pro Ser Tyr Xaa Lys Pro Arg Pro		235
	245	250
Leu Ser Met Pro Ala Asp Gly Asn Trp Met Gly Ile Val Asp Pro Phe		255
	260	265
Ala Arg Pro Arg Gly His Gly Arg Lys Gly Glu Asp Ala Leu Cys Arg		270
	275	280
Tyr Phe Ser Asn Glu Arg Ile Pro Pro Ile Ile Glu Glu Ser Ser Ser		285
	290	295
Pro Pro Tyr Arg Phe Ser Arg Pro Thr Thr Glu Arg His Leu Val Arg		300
	305	310
Gly Ala Asp Tyr Ile Arg Gly Ser Arg Cys Tyr Ile Asn Ser Asp Leu		315
	325	330
His Ser Ser Ala Thr Ile Pro Phe Gln Glu Glu Gly Thr Lys Lys Lys		335
	340	345
Ser Gly Ser Ser Ala Thr Lys Ser Ser Ser Thr Glu Pro Ser Leu Leu		350
	355	360
Val Ser Trp Phe Thr Arg Leu Lys Leu Leu Thr His		365
	370	375
		380

<210> 284
 <211> 1789
 <212> DNA
 <213> Homo sapiens

<400> 284					
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tcctcatgg ctgatggatc ccaaggggct cctctccttg accttcgtgc tgtttctctc					180
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 <213> Homo sapiens

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Tyr	Ala	Gly	Leu	Leu	Gly	Gly	Val	Ile	Met	Ile	Leu	Ile	Met	Val	Val
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Ile	Leu	Gln	Leu	Arg	Arg	Arg	Gly	Lys	Thr	Asn	His	Tyr	Gln	Thr	Thr
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Val	Glu	Lys	Lys	Ser	Leu	Thr	Ile	Tyr	Ala	Gln	Val	Gln	Lys	Pro	Gly
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 <212> PRT
 <213> Homo sapiens

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Pro	Gly	Pro	Leu	Gln	Lys	Lys	Leu	Asp	Ser	Phe	Pro	Ala	Gln	Asp	Pro
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<210> 287
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 <212> PRT
 <213> Homo sapiens

<400> 287															
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 Glu Asp Glu Gly Trp Tyr Leu Met Thr Leu Glu Lys Asn Val Ser Val
 115 120 125
 Gln Arg Phe Cys Leu Gln Leu Arg Leu Tyr Glu Gln Val Ser Thr Pro
 130 135 140
 Glu Ile Lys Val Leu Asn Lys Thr Gln Glu Asn Gly Thr Cys Thr Leu
 145 150 155 160
 Ile Leu Gly Cys Thr Val Glu Lys Gly Asp His Val Ala Tyr Ser Trp
 165 170 175
 Ser Glu Lys Ala Gly Thr His Pro Leu Asn Pro Ala Asn Ser Ser His
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 Cys Thr Val Ser Asn Pro Ile Ser Asn Asn Ser Gln Thr Phe Ser Pro
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 Trp Pro Gly Cys Arg Thr Asp Pro Ser Glu Thr Lys Pro Trp Ala Val
 225 230 235 240
 Tyr Ala Gly Leu Leu Gly Gly Val Ile Met Ile Leu Ile Met Val Val
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 Ile Leu Gln Leu Arg Arg Arg Gly Lys Thr Asn His Tyr Gln Thr Thr
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 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
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 Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
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 <212> DNA
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<400> 290

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cagacctgta	gaaccagtgt	gtgatgggggt	gcagatgccc	ctttgtggga	tagaagaaaa	2340
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<210> 291
 <211> 765

<212> PRT
<213> Mouse

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<400> 291
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Gly Gln Val Pro Trp Thr Pro Glu Pro Arg Ala Ala Cys Gly Pro Ser
 20      25      30
Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
 35      40      45
Arg Ala Cys Arg Glu Leu Gly Gly Asn Leu Ala Thr Pro Arg Thr Pro
 50      55      60
Glu Glu Ala Gln Arg Val Asp Ser Leu Val Gly Val Gly Pro Ala Asn
 65      70      75      80
Gly Leu Leu Trp Ile Gly Leu Gln Arg Gln Ala Arg Gln Cys Gln Pro
 85      90      95
Gln Arg Pro Leu Arg Gly Phe Ile Trp Thr Thr Gly Asp Gln Asp Thr
 100     105     110
Ala Phe Thr Asn Trp Ala Gln Pro Ala Thr Glu Gly Pro Cys Pro Ala
 115     120     125
Gln Arg Cys Ala Ala Leu Glu Ala Ser Gly Glu His Arg Trp Leu Glu
 130     135     140
Gly Ser Cys Thr Leu Ala Val Asp Gly Tyr Leu Cys Gln Phe Gly Phe
 145     150     155     160
Glu Gly Ala Cys Pro Ala Leu Pro Leu Glu Val Gly Gln Ala Gly Pro
 165     170     175
Ala Val Tyr Thr Thr Pro Phe Asn Leu Val Ser Ser Glu Phe Glu Trp
 180     185     190
Leu Pro Phe Gly Ser Val Ala Ala Val Gln Cys Gln Ala Gly Arg Gly
 195     200     205
Ala Ser Leu Leu Cys Val Lys Gln Pro Ser Gly Gly Val Gly Trp Ser
 210     215     220
Gln Thr Gly Pro Leu Cys Pro Gly Thr Gly Cys Gly Pro Asp Asn Gly
 225     230     235     240
Gly Cys Glu His Glu Cys Val Glu Glu Val Asp Gly Ala Val Ser Cys
 245     250     255
Arg Cys Ser Glu Gly Phe Arg Leu Ala Asp Gly His Ser Cys Glu
 260     265     270
Asp Pro Cys Ala Gln Ala Pro Cys Glu Gln Gln Cys Glu Pro Gly Gly
 275     280     285
Pro Gln Gly Tyr Ser Cys His Cys Arg Leu Gly Phe Arg Pro Ala Glu
 290     295     300
Asp Asp Pro His Arg Cys Val Asp Thr Asp Glu Cys Gln Ile Ala Gly
 305     310     315     320
Val Cys Gln Gln Met Cys Val Asn Tyr Val Gly Gly Phe Glu Cys Tyr
 325     330     335
Cys Ser Glu Gly His Glu Leu Glu Ala Asp Gly Ile Ser Cys Ser Pro
 340     345     350
Ala Gly Ala Met Gly Ala Gln Ala Ser Gln Asp Leu Arg Asp Glu Leu
 355     360     365
Leu Asp Asp Gly Glu Glu Gly Glu Asp Glu Glu Glu Pro Trp Glu Asp
 370     375     380
Phe Asp Gly Thr Trp Thr Glu Glu Gln Gly Ile Leu Trp Leu Ala Pro
 385     390     395     400
Thr His Pro Pro Asp Phe Gly Leu Pro Tyr Arg Pro Asn Phe Pro Gln
 405     410     415
Asp Gly Glu Pro Gln Arg Leu His Leu Glu Pro Thr Trp Pro Pro Pro
 420     425     430
Leu Ser Ala Pro Arg Gly Pro Tyr His Ser Ser Val Val Ser Ala Thr
 435     440     445
Arg Pro Met Val Ile Ser Ala Thr Arg Pro Thr Leu Pro Ser Ala His

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450		455		460
Lys Thr Ser Val Ile Ser	Ala Thr Arg Pro	Pro Leu Ser Pro Val His		
465	470	475	480	
Pro Pro Ala Met Ala	Pro Ala Thr Pro	Pro Ala Val Phe Ser Glu His		
	485	490	495	
Gln Ile Pro Lys Ile Lys	Ala Asn Tyr Pro	Asp Leu Pro Phe Gly His		
	500	505	510	
Lys Pro Gly Ile Thr Ser	Ala Thr His Pro	Ala Arg Ser Pro Pro Tyr		
	515	520	525	
Gln Pro Pro Ile Ile Ser	Thr Asn Tyr Pro	Gln Val Phe Pro Pro His		
	530	535	540	
Gln Ala Pro Met Ser Pro	Asp Thr His Thr	Ile Thr Tyr Leu Pro Pro		
545	550	555	560	
Val Pro Pro His Leu Asp	Pro Gly Asp Thr	Thr Ser Lys Ala His Gln		
	565	570	575	
His Pro Leu Leu Pro Asp	Ala Pro Gly Ile	Arg Thr Gln Ala Pro Gln		
	580	585	590	
Leu Ser Val Ser Ala Leu	Gln Pro Leu Pro	Thr Asn Ser Arg Ser		
	595	600	605	
Ser Val His Glu Thr Pro	Val Pro Ala Ala	Asn Gln Pro Pro Ala Phe		
	610	615	620	
Pro Ser Ser Pro Leu Pro	Gln Arg Pro Thr	Asn Gln Thr Ser Ser		
625	630	635	640	
Ile Ser Pro Thr His Ser	Tyr Ser Arg Ala	Pro Leu Val Pro Arg Glu		
	645	650	655	
Gly Val Pro Ser Pro Lys	Ser Val Pro Gln	Leu Pro Ser Val Pro Ser		
	660	665	670	
Thr Ala Ala Pro Thr Ala	Leu Ala Glu Ser	Gly Leu Ala Gly Gln Ser		
	675	680	685	
Gln Arg Asp Asp Arg Trp	Leu Leu Val Ala	Leu Leu Val Pro Thr Cys		
	690	695	700	
Val Phe Leu Val Val Leu	Leu Ala Leu Gly	Ile Val Tyr Cys Thr Arg		
705	710	715	720	
Cys Gly Ser His Ala Pro	Asn Lys Arg Ile	Thr Asp Cys Tyr Arg Trp		
	725	730	735	
Val Thr His Ala Gly Asn	Lys Ser Ser Thr	Glu Pro Met Pro Pro Arg		
	740	745	750	
Gly Ser Leu Thr Gly Val	Gln Thr Cys Arg	Thr Ser Val		
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<210> 292
 <211> 3020
 <212> DNA
 <213> Mouse

<400> 292	
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tcctggacct cctggaagct agactagggc ctggagcaac gaccggcttt ggactctctg	180
attcagggtc ctctaagcc tcagagggac aaaaaagagt ccctgcaagt cgtccacggg	240
gctgggagca gccgggtggc tcatgactac tcagagagtc tgcccaaaga aaagagtctt	300
gtatttgaaa ggtttctggg tacctgaccg tgttgcggtt gtttctaccc aacgtttaac	360
agagagccca gagccatgat gaagaccttg tccagtggga actgcacact caatgtgcct	420
gctaagaact cctaccgcat ggtggtgctg ggtgcctccc gactgggcaa gagctccatt	480
gtctcccgtc tcttcaatgg ccgcttttgag gaccagtaca cgcccactat cgaggacttt	540
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ggcaaccacc cattccctgc catgcgccgg ctctccatcc tcacaggaga tgtcttcatc	660
ctgggtgttca gcttgatag ccgggagtc tttgatgagg tcaagcgct ccagaaacag	720
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gtgatctgtg ggaacaagaa tgaccacagt gagctgtgcc gccaggtccc tgccatggag	840
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Ser Glu Leu Cys Arg Gln Val Pro Ala Met Glu Ala Glu Leu Leu Val
 145 150 155 160
 Ser Gly Asp Glu Asn Cys Ala Tyr Phe Glu Val Ser Ala Lys Lys Asn
 165 170 175
 Thr Asn Val Asn Glu Met Phe Tyr Val Leu Phe Ser Met Ala Lys Leu
 180 185 190
 Pro His Glu Met Ser Pro Ala Leu His His Lys Ile Ser Val Gln Tyr
 195 200 205
 Gly Asp Ala Phe His Pro Arg Pro Phe Cys Met Arg Arg Thr Lys Val
 210 215 220
 Ala Gly Ala Tyr Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val
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 Asn Ser Asp Leu Lys Tyr Ile Lys Ala Lys Val Leu Arg Glu Gly Gln
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 Ala Arg Glu Arg Asp Lys Cys Ser Ile Gln
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<210> 294
 <211> 5520
 <212> DNA
 <213> Mouse

<400> 294

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ctcctggctc	ctggaactcg	gggtgcgcct	ggctgcccgg	tcctatccg	cggttgcaag	240
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gtggtgtgcg	gcggtgggga	tctccccgaa	cctccagatc	cgggccttct	gccaaacggc	360
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<213> Mouse

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<400> 295
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20      25      30
Pro Ile Arg Gly Cys Lys Cys Ser Gly Glu Arg Pro Lys Gly Leu Ser
35      40      45
Gly Gly Ala His Asn Pro Ala Arg Arg Arg Val Val Cys Gly Gly Gly
50      55      60
Asp Leu Pro Glu Pro Pro Asp Pro Gly Leu Leu Pro Asn Gly Thr Ile
65      70      75      80
Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser
85      90      95
Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Ser Asn Val
100     105
Ile Ser Thr Val Gln Pro Gly Ala Phe Leu Gly Leu Gly Glu Leu Lys
115     120     125
Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr
130     135     140
Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile
145     150     155     160
Tyr Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys
165     170     175
Ile Val Asp Phe Gly Thr Glu Phe Leu Thr Cys Asp Cys Arg Leu Arg
180     185     190
Trp Leu Leu Pro Trp Ala Arg Asn His Ser Leu Gln Leu Ser Glu Arg
195     200     205
Thr Leu Cys Ala Tyr Pro Ser Ala Leu His Ala His Ala Leu Ser Ser
210     215     220
Leu Gln Glu Ser Gln Leu Arg Cys Glu Gly Ala Leu Glu Leu His Thr
225     230     235     240
His Tyr Leu Ile Pro Ser Leu Arg Gln Val Val Phe Gln Gly Asp Arg
245     250     255
Leu Pro Phe Gln Cys Ser Ala Ser Tyr Leu Gly Asn Asp Thr Arg Ile
260     265     270
His Trp Tyr His Asn Gly Ala Pro Met Glu Ser Asp Glu Gln Ala Gly
275     280     285
Ile Val Leu Ala Glu Asn Leu Ile His Asp Cys Thr Phe Ile Thr Ser
290     295     300
Glu Leu Thr Leu Ser His Ile Gly Val Trp Ala Ser Gly Glu Trp Glu
305     310     315     320
Cys Ser Val Ser Thr Val Gln Gly Asn Thr Ser Lys Lys Val Glu Ile
325     330     335
Val Val Leu Glu Thr Ser Ala Ser Tyr Cys Pro Ala Glu Arg Val Thr
340     345     350
Asn Asn Arg Gly Asp Phe Arg Trp Pro Arg Thr Leu Ala Gly Ile Thr
355     360     365
Ala Tyr Gln Ser Cys Leu Gln Tyr Pro Phe Thr Ser Val Pro Leu Ser
370     375     380
Gly Gly Ala Pro Gly Thr Arg Ala Ser Arg Arg Cys Asp Arg Ala Gly
385     390     395     400
Arg Trp Glu Pro Gly Asp Tyr Ser His Cys Leu Tyr Thr Asn Asp Ile
405     410     415
Thr Arg Val Leu Tyr Thr Phe Val Leu Met Pro Ile Asn Ala Ser Asn
420     425     430
Ala Leu Thr Leu Ala His Gln Leu Arg Val Tyr Thr Ala Glu Ala Ala
435     440     445
Ser Phe Ser Asp Met Met Asp Val Val Tyr Val Ala Gln Met Ile Gln
450     455     460

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Lys	Phe	Leu	Gly	Tyr	Val	Asp	Gln	Ile	Lys	Glu	Leu	Val	Glu	Val	Met
465					470					475					480
Val	Asp	Met	Ala	Ser	Asn	Leu	Met	Leu	Val	Asp	Glu	His	Leu	Leu	Trp
				485					490						495
Leu	Ala	Gln	Arg	Glu	Asp	Lys	Ala	Cys	Ser	Gly	Ile	Val	Gly	Ala	Leu
			500					505					510		
Glu	Arg	Ile	Gly	Gly	Ala	Ala	Leu	Ser	Pro	His	Ala	Gln	His	Ile	Ser
		515					520					525			
Val	Asn	Ser	Arg	Asn	Val	Ala	Leu	Glu	Ala	Tyr	Leu	Ile	Lys	Pro	His
	530					535					540				
Ser	Tyr	Val	Gly	Leu	Thr	Cys	Thr	Ala	Phe	Gln	Arg	Arg	Glu	Val	Gly
545					550					555					560
Val	Ser	Gly	Ala	Gln	Pro	Ser	Ser	Val	Gly	Gln	Asp	Ala	Pro	Val	Glu
				565					570						575
Pro	Glu	Pro	Leu	Ala	Asp	Gln	Gln	Leu	Arg	Phe	Arg	Cys	Thr	Thr	Gly
			580					585					590		
Arg	Pro	Asn	Ile	Ser	Leu	Ser	Ser	Phe	His	Ile	Lys	Asn	Ser	Val	Ala
		595					600					605			
Leu	Ala	Ser	Ile	Gln	Leu	Pro	Pro	Ser	Leu	Phe	Ser	Thr	Leu	Pro	Ala
	610					615					620				
Ala	Leu	Ala	Pro	Pro	Val	Pro	Pro	Asp	Cys	Thr	Leu	Gln	Leu	Leu	Val
625					630					635					640
Phe	Arg	Asn	Gly	Arg	Leu	Phe	Arg	Ser	His	Gly	Asn	Asn	Thr	Ser	Arg
				645					650						655
Pro	Gly	Ala	Ala	Gly	Pro	Gly	Lys	Arg	Arg	Gly	Val	Ala	Thr	Pro	Val
			660					665					670		
Ile	Phe	Ala	Gly	Thr	Ser	Gly	Cys	Gly	Val	Gly	Asn	Leu	Thr	Glu	Pro
		675					680					685			
Val	Ala	Val	Ser	Leu	Arg	His	Trp	Ala	Glu	Gly	Ala	Asp	Pro	Met	Ala
	690					695					700				
Ala	Trp	Trp	Asn	Gln	Asp	Gly	Pro	Gly	Gly	Trp	Ser	Ser	Glu	Gly	Cys
705					710					715					720
Arg	Leu	Arg	Tyr	Ser	Gln	Pro	Asn	Val	Ser	Ser	Leu	Tyr	Cys	Gln	His
				725					730					735	
Leu	Gly	Asn	Val	Ala	Val	Leu	Met	Glu	Leu	Asn	Ala	Phe	Pro	Arg	Glu
			740					745					750		
Ala	Gly	Gly	Ser	Gly	Ala	Gly	Leu	His	Pro	Val	Val	Tyr	Pro	Cys	Thr
		755					760					765			
Ala	Leu	Leu	Leu	Leu	Cys	Leu	Phe	Ser	Thr	Ile	Ile	Thr	Tyr	Ile	Leu
	770					775					780				
Asn	His	Ser	Ser	Ile	His	Val	Ser	Arg	Lys	Gly	Trp	His	Met	Leu	Leu
785					790					795					800
Asn	Leu	Cys	Phe	His	Met	Ala	Met	Thr	Ser	Ala	Val	Phe	Val	Gly	Gly
			805						810					815	
Val	Thr	Leu	Thr	Asn	Tyr	Gln	Met	Val	Cys	Gln	Ala	Val	Gly	Ile	Thr
			820					825					830		
Leu	His	Tyr	Ser	Ser	Leu	Ser	Ser	Leu	Leu	Trp	Met	Gly	Val	Lys	Ala
		835					840					845			
Arg	Val	Leu	His	Lys	Glu	Leu	Ser	Trp	Arg	Ala	Pro	Pro	Leu	Glu	Glu
	850					855					860				
Gly	Glu	Ala	Ala	Pro	Pro	Gly	Pro	Arg	Pro	Met	Leu	Arg	Phe	Tyr	Leu
865					870					875					880
Ile	Ala	Gly	Gly	Ile	Pro	Leu	Ile	Ile	Cys	Gly	Ile	Thr	Ala	Ala	Val
				885					890					895	
Asn	Ile	His	Asn	Tyr	Arg	Asp	His	Ser	Pro	Tyr	Cys	Trp	Leu	Val	Trp
			900					905					910		
Arg	Pro	Ser	Leu	Gly	Ala	Phe	Tyr	Ile	Pro	Val	Ala	Leu	Ile	Leu	Pro
		915					920					925			
Ile	Thr	Trp	Ile	Tyr	Phe	Leu	Cys	Ala	Gly	Leu	His	Leu	Arg	Ser	His
	930					935					940				
Val	Ala	Gln	Asn	Pro	Lys	Gln	Gly	Asn	Arg	Ile	Ser	Leu	Glu	Pro	Gly

945		950		955		960
Glu Glu Leu Arg Gly Ser Thr Arg Leu Arg Ser Ser Gly Val Leu Leu						
	965			970		975
Asn Asp Ser Gly Ser Leu Leu Ala Thr Val Ser Ala Gly Val Gly Thr						
	980		985		990	
Pro Ala Pro Pro Glu Asp Gly Asp Gly Val Tyr Ser Pro Gly Val Gln						
	995	1000		1005		
Leu Gly Ala Leu Met Thr Thr His Phe Leu Tyr Leu Ala Met Trp Ala						
	1010	1015		1020		
Cys Gly Ala Leu Ala Val Ser Gln Arg Trp Leu Pro Arg Val Val Cys						
	1025	1030		1035		1040
Ser Cys Leu Tyr Gly Val Ala Ala Ser Ala Leu Gly Leu Phe Val Phe						
	1045		1050		1055	
Thr His His Cys Ala Arg Arg Arg Asp Val Arg Ala Ser Trp Arg Ala						
	1060	1065		1070		
Cys Cys Pro Pro Ala Ser Pro Ser Ala Ser His Val Pro Ala Arg Ala						
	1075	1080		1085		
Leu Pro Thr Ala Thr Glu Asp Gly Ser Pro Val Leu Gly Glu Gly Pro						
	1090	1095		1100		
Ala Ser Leu Lys Ser Ser Pro Ser Gly Ser Ser Gly Arg Ala Pro Pro						
	1105	1110		1115		1120
Pro Pro Cys Lys Leu Thr Asn Leu Gln Val Ala Gln Ser Gln Val Cys						
	1125		1130		1135	
Glu Ala Ser Val Ala Ala Arg Gly Asp Gly Glu Pro Glu Pro Thr Gly						
	1140	1145		1150		
Ser Arg Gly Ser Leu Ala Pro Arg His His Asn Asn Leu His His Gly						
	1155	1160		1165		
Arg Arg Val His Lys Ser Arg Ala Lys Gly His Arg Ala Gly Glu Thr						
	1170	1175		1180		
Gly Gly Lys Ser Arg Leu Lys Ala Leu Arg Ala Gly Thr Ser Pro Gly						
	1185	1190		1195		1200
Ala Pro Glu Leu Leu Ser Ser Glu Ser Gly Ser Leu His Asn Ser Pro						
	1205		1210		1215	
Ser Asp Ser Tyr Pro Gly Ser Ser Arg Asn Ser Pro Gly Asp Gly Leu						
	1220	1225		1230		
Pro Leu Glu Gly Glu Pro Met Leu Thr Pro Ser Glu Gly Ser Asp Thr						
	1235	1240		1245		
Ser Ala Ala Pro Ile Ala Glu Thr Gly Arg Pro Gly Gln Arg Arg Ser						
	1250	1255		1260		
Ala Ser Arg Asp Asn Leu Lys Gly Ser Gly Ser Ala Leu Glu Arg Glu						
	1265	1270		1275		1280
Ser Lys Arg Arg Ser Tyr Pro Leu Asn Thr Thr Ser Leu Asn Gly Ala						
	1285		1290		1295	
Pro Lys Gly Gly Lys Tyr Glu Asp Ala Ser Val Thr Gly Ala Glu Ala						
	1300	1305		1310		
Ile Ala Gly Gly Ser Met Lys Thr Gly Leu Trp Lys Ser Glu Thr Thr						
	1315	1320		1325		
Val						

<210> 296
 <211> 2840
 <212> DNA
 <213> Mouse

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gctcagtcgc gcaacacccg caggtcaca tgaaggtcaa gactctgcat ggactgcaa	180
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<211> 530
<212> PRT
<213> Mouse

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35        40        45
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50        55        60
Trp Lys Arg Asn Val Asp Pro Phe Lys Ala Val Asp Thr Asn Arg Ala
65        70        75        80
Ser Met Gly Gln Ala Ser Pro Glu Ser Lys Gly Phe Thr Asp Leu Leu
85        90        95
Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
100       105       110
His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ala Asp Ser Ala Ser
115       120       125
Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
130       135       140
Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
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 <212> PRT
 <213> Mouse

<400> 301

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Lys	Ser	Gly	Ser	Val	Leu	His	Trp	Asn	Glu	Ile	Tyr	Tyr	Phe	Val	
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Glu	Gln	Leu	Ala	His	Arg	Phe	Ile	Ser	Pro	Gln	Leu	Arg	Met	Ser	Phe
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Ala	Leu	Thr	Asp	Gly	Glu	Leu	His	Glu	Asp	Leu	Phe	Phe	Tyr	Ser	Glu
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Arg	Glu	Ala	Asn	Arg	Ser	Arg	Asp	Leu	Gly	Ala	Ile	Val	Tyr	Cys	Val
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Gly	Val	Lys	Asp	Phe	Asn	Glu	Thr	Gln	Leu	Ala	Arg	Ile	Ala	Asp	Ser
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Lys	Asp	His	Val	Phe	Pro	Val	Asn	Asp	Gly	Phe	Gln	Ala	Leu	Gln	Gly
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210						215					220				
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 <212> PRT
 <213> Mouse

<400> 303

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<400> 304

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<210> 305
<211> 1479
<212> PRT
<213> Mouse

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35 40 45
Gly Met Gln Gly Cys Leu Glu Ala Gln Gly Val Gln Val Arg Val Thr
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Pro Phe Cys Asn Ala Ser Leu Pro Ala Gln Arg Trp Lys Trp Val Ser
65 70 75 80
Arg Asn Arg Leu Phe Asn Leu Gly Ala Thr Gln Cys Leu Gly Thr Gly
85 90 95
Trp Pro Val Thr Asn Thr Thr Val Ser Leu Gly Met Tyr Glu Cys Asp
100 105 110
Arg Glu Ala Leu Ser Leu Arg Met Ala Val Ser Tyr Thr Arg Gly Pro
115 120 125
Val Val Pro Ala Ser Gly Gly Ser Cys Lys Gln Cys Ile Gln Ala Trp
130 135 140
His Leu Glu Arg Gly Asp Gln Thr Arg Ser Gly His Trp Asn Ile Tyr
145 150 155 160
Gly Ser Glu Glu Asp Leu Cys Ala Arg Pro Tyr Tyr Glu Val Tyr Thr
165 170 175
Ile Gln Gly Asn Ser His Gly Lys Pro Cys Thr Ile Pro Phe Lys Tyr
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Asp Asn Gln Trp Phe His Gly Cys Thr Ser Thr Gly Arg Glu Asp Gly
195 200 205
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Tyr Thr Val Gln Gln Tyr Glu Asn Glu Glu Gly Lys Trp Val Leu Ile
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